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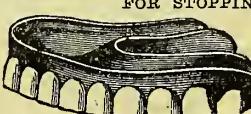
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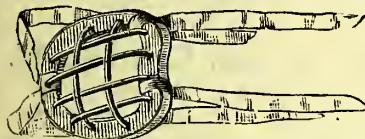
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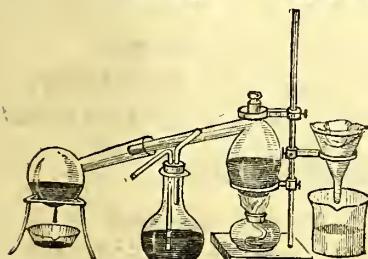
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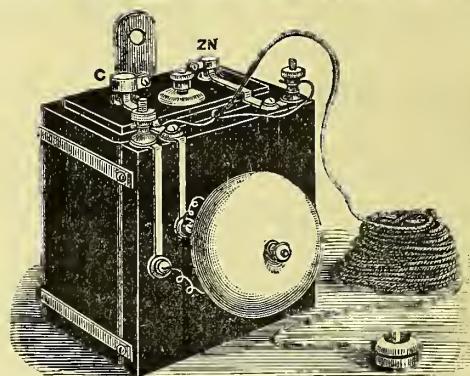
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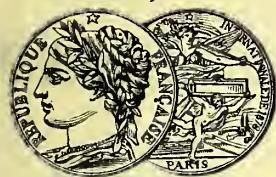
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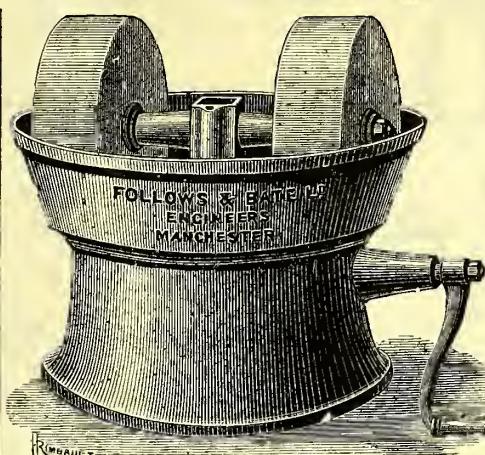
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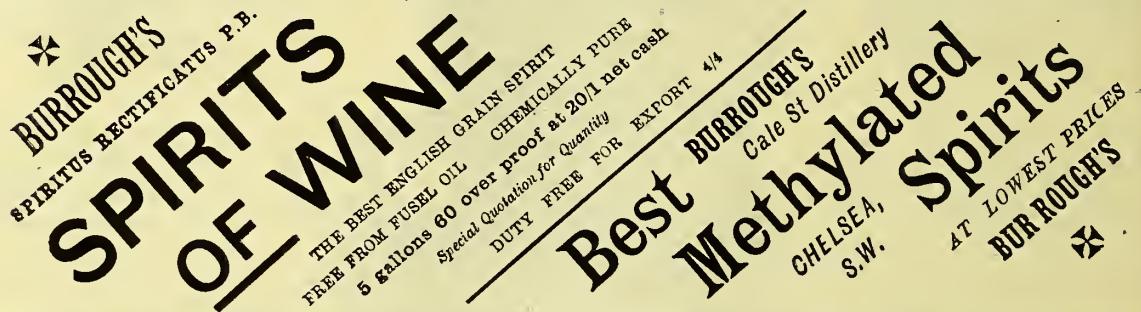
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60 ..	0.8298	20/4
55 ..	0.8366	19/10
50 ..	0.8482	19/4

Terms—Cash on Delivery. Jars to be returned or paid for.

For Exportation, Cask included, 4/0, 60 O.P., F.O.B.

Orders from the country must be accompanied with a remittance, including the price of the Jars, which are charged as follows :—2 gall. 3/-; 3 gall. 3/6; 4 gall. 4/-; 5 gall. 5/6; 6 gall. 6/-. When the empties are returned the money will be repaid.

Prevents the iron sticking to the linen.



Suitable for hot or cold water
several

Sold in 1d., 3d., 6d., and 1s. Packets, and in Large Boxes, for Hotels, Laundries, &c., 5s., 10s., and 20s. each.

Wholesale by Maw & Sons, Evans Sons & Co., Southall Bros. & Barclay, Wyleys & Co., &c.

GUMS

G. F. H. CLARK & CO.,
ESTAB. 1848.] 1 BURY STREET, ST. MARY AXE, E.C., [ESTAB. 1848.

SHELLACS, CUTCH, & GENERAL DRYSLTERS.

Drugs of all descriptions.

CHEMICALS, ESS. LEMON, GLUES, GELATINES.

SAMPLES AND PRICES ON APPLICATION.

GENUINE EMERY, EMERY CLOTH, AND BLACK LEAD.

JOHN OAKES & SONS,

MANUFACTURERS OF

Glass Paper, Emery and Glass Cloth; Emery, Black Lead, Pumice, Putty Powder, Crocus, Urn Powder, Tripoli, Rouge, Plate Powder, Steel Polish, Furniture Polish, Knife Boards, Brunswick and Berlin Black, &c.

OAKES'S WELLINGTON KNIFE POLISH,

Prepared expressly for Oakey's Patent India-Rubber Knife Boards, Buff Leather Boards, and all the Patent Knife Cleaning Machines. Sold in Packets, 8d. each; and Tins, with perforated Tops to prevent waste, 6d., 1s., 2s. 6d., and 4s. each.

OAKES'S NON-MERCURIAL SILVERSMITH'S SOAP,

For Cleaning and Polishing Silver, Plate Glass, Marble, &c. Tablets, 6d. each.

OAKES'S POLISHING PASTE,

For Cleaning Brass, Copper, Tin, Pewter, &c., &c. Boxes, 1d.; Tins, 2d.; Pots, 6d. and 1s. each.

WELLINGTON BLOCK BLACK LEAD.

In 1d., 2d., and 4d. Blocks, and 1s. Boxes.

WELLINGTON EMERY & BLACK LEAD MILLS, Westminster Bridge Road, London, S.E.
Highest Award and Prize Medal, Philadelphia Exhibition, 1876.

FOR CLEANING PLATE.

BRADLEY & BOURDAS'S

ALBATUM or WHITE ROUGE,

For Cleaning Gold, Silver, and Plated Goods.

Since its introduction as a substitute for the ordinary Rouge, a quarter of a century ago, the sale has amazingly increased both at home and abroad. A trial is only needed to prove its superiority over other plate powders in use. Sold in Boxes at 1s. and 2s.; Tins, 6s. 6 Pont Street, Belgrave Square, and 48 Belgrave Road, London, S.W.

HANNO SPECIMEN.



LEECHES!

Warranted Healthy, Wholesale and for Exportation, Direct from Marshes.

FITCH & NOTTINGHAM,
Leech Breeders,

MARSHES, & 55 PENTONVILLE
ROAD, LONDON, N.

All Orders by Post receive immediate attention.

Highest Award, Philadelphia, 1876. Gold Medal, Berlin, 1877. Highest Award and only Medal Paris Exhibition, 1878. Highest Award, Melbourne, 1881. Highest Award and only Medal Frankfort, 1881.

BROWN'S SATIN POLISH

Put on by Sponge attached to Wire and Cork in each Bottle. No Polishing Brush required. Dries in a few minutes. Can be used by any lady without soiling her fingers.

The "Satin Polish" is the most Elegant Article of the kind ever produced.

LADIES' SHOES, which have become Red and Rough by wearing, are restored to their ORIGINAL COLOUR and LUSTRE, and will not soil the skirts when wet. TARNISHED PATENT LEATHER is improved by it.

For Travelling Bags, Trunks, Harness, Carriage Tops, &c., it is unequalled. It will not harden the Leather nor crack. It is not a spirit varnish. In Cartons, 4s. 6d. per dozen; 52s. per gross. Packed in Sawdust, 3s. 9d. per dozen; 4s. 6d. per gross, 2 $\frac{1}{2}$ %.



AMERICAN MAGIC BRONZE

Is the best in the Market, and it can be used with good effect on Ornaments, Picture Frames, Iron and Fancy Work generally, as well as for Boots and Shoes. In Cartons, 7s. per dozen. 2 $\frac{1}{2}$ %.

SOLD BY ALL WHOLESALE CHEMISTS AND DRUGGISTS' SUNDRIESMEN.

Factories: BOSTON MONTREAL 18 & 20 Norman's Buildings, ST. LUKE'S, LONDON.

CHISWICK SOAP COMPANY,
CHISWICK, LONDON, W.,

SOFT SOAP

MANUFACTURERS, WHOLESALE AND EXPORT.

"IMPERIAL" SOFT SOAP	Manufactured specially for Domestic use, and packed in 1, 2, 3, 3 $\frac{1}{2}$, 4, and 7 lb. Tins.
"FINEST PALE" ,	Very pale Amber colour, odourless. Packed in barrels, firkins, half-firkins, and 14-lb. tins.
"B B," "B B," "BL," ,	The usual qualities, and kept in all packages to suit buyers.
CARBOLIC ,	Contains 10 % Calvert's No. 5 Acid. For Dogs and Cattle, making Sheep Dip, and general disinfecting purposes. Packed in 1, 2, 4, and 7 lb. tins; 14, 28, 56, and 112 lb. iron drums.
OLIVE ,	The B.P. "Sapo Mollis," made from finest Olive Oil and pure Potash, in tins, firkins and jars.

WILMINGTON OIL MILLS, HULL.

DAVID SALMOND & SON,

SEED CRUSHERS AND OIL REFINERS,

MANUFACTURERS OF

PURE LINSEED & COTTON CAKES,

ALSO

RAPE CAKES

FOR MANURE PURPOSES.

FREE DELIVERED TO RAILS OR CRAFT ALONGSIDE MILL.

SAMPLES ON APPLICATION.

It is with great pride and pleasure we give you statistics of out-turn of D.S. Linseed Cakes for comparison during the LAST MONTHS OF THE PAST FOUR YEARS. Being a manufactured article going into consumption, FACTS speak for themselves. We sincerely thank our customers for their favours; and we shall endeavour to look to their interests on all occasions, and make uniform quality our first consideration.

OUT-TURN OF D.S. PURE LINSEED CAKES.

	1880.	1881.	1882.	1883.
September.....	97	111	339	741 Tons.
October.....	156	84	116	589 "
November.....	109	500	185	1,041 "
December.....	93	408 $\frac{1}{2}$	221 $\frac{1}{2}$	1,194 "
Total.....	455	1103 $\frac{1}{2}$	861 $\frac{1}{2}$	3,565 "

ESTABLISHED 1732.

RICHARD W. WRANGHAM

(Successor to Foster & Wrangham, Established 1732),

CRUSHED LINSEED & LINSEED MEAL MANUFACTURER,
PRACTICAL OIL REFINER, OIL BOILER,
AND SEED CRUSHER
Paint, Colour, Varnish, and Whiting Manufacturer
OIL, TALLOW, BEESWAX, ROSIN, AND TAR MERCHANT,
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SEED, CAKE, CORN, AND GENERAL MERCHANT,
Chemist & Grocers' Sundryman, Wholesale Drysalter.
LIME STREET, HULL.

Exporter to all parts of the World. Importer from all parts of the World.

BIGGS & OLIPHANT,

TIN WORKS,

HERTFORD ST., HAGGERSTON RD., LONDON, E.
MANUFACTURERS OF ALL KINDS OF
TIN CANISTERS, OIL BOTTLES, &c.,
FOR
CHEMISTS, DRUGGISTS, GROCERS, CONFECTIONERS,
AND OIL MERCHANTS.

Also Packages suitable for the New Postal Arrangements
for Post Parcels.

PRICES ON APPLICATION.

GOLD MEDAL, ADELAIDE, 1881. DIPLOMA OF MERIT, VIENNA, 1873.
ORDER OF MERIT, MELBOURNE, 1880.

Needham's
Polishing Paste,
For Cleaning Brass
Copper, and Britan
Metal Goods, &c.

Pickerings' Razor
Paste,
For Sharpening Razors, &c.

Waterproof
Harness Blacking,
For Black Leather
Harness.

Joseph Pickering & Sons (J. Needham), Albyn Works, Sheffield. Sheffield Knife
Powder,
For Table Knives, Fire
Irons, &c.

Plate Powder,
For Electro-plate
Articles, &c.

Furniture Polish,
For cleaning French
Polished Furniture, &c.

Brunswick
Black,
For all kinds of
Iron Work.

"LA BRILLANTINE"

(REGISTERED)

Is used by the Life, Horse, and Dragoon Guards,
the Fire Brigades, &c.

METALLIC POWDER

For Cleaning and Polishing Metals and
Glass (especially Brass).

PROPRIETORS—

J. F. BAUMGARTNER & CO.,

22 NEWMAN STREET, OXFORD STREET,
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Sold by all Wholesale Houses. Beware of Imitations.

PAINTS. VARNISHES. WOOD STAINS.



VIENNA.

READY-MIXED PAINTS,

Packed in 1, 2, 4, 7, and 14-lb. Tins.

28 USEFUL and SALEABLE TINTS,

Superior Colours, well packed, and
guaranteed to Dry Well.

HANDSOME SHOW BOARDS

(Framed and Glazed), with Specimens of
the Colours, supplied.

PRICES AND SAMPLE CARD ON APPLICATION.

MANUFACTURERS OF

OIL VARNISHES

(Every description).

JAPANS.

BRUNSWICK AND BERLIN BLACKS.

TEREBINE.

FRENCH POLISH.

WHITE AND BROWN HARD SPIRIT VARNISHES.

KNOTTING. LACQUERS.

DRYERS and } of the finest
GROUND COLOURS } quality.

DRY COLOURS, all Prices and Shades.

IMPORTERS OF OCHRE, ULTRAMARINE, &c.



LONDON.

WOOD STAINS,

"SPECIAL."

MAHOGANY, OAK, WALNUT
SATINWOOD,

ROSEWOOD, EBONY.

Draught, or packed in 6d. bottles ($\frac{1}{2}$ -pint).

Also in powder.

SHOW BOARDS,

With specimens of the Stained Woods,
supplied.The demand for these Stains is steadily
increasing. They possess great richness
and truth of colour, andARE OFFERED AT A REASON-
ABLE PRICE.

NOTICE.—All communications should be addressed to the Office—

LAYTON'S BUILDINGS, 199 HIGH STREET, SOUTHWARK, LONDON, S.E.

There is no connection with any firm of a similar name.

ESTABLISHED 1853.

HENRY MARKS & SONS, SPONGE MERCHANTS,

45 Houndsditch, London, E.C.; and at Hydra & Syra (Greece), and Symi & Smyrna (Turkey).

(ESTABLISHED 1810.)

WHOLESALE AND EXPORT ONLY.

BATTLE'S VERMIN KILLER.

{ Mice eat it readily, and
Die on the spot.

Has an immediate Sale, and wherever introduced never fails to give satisfaction.—Mice appear attracted to it as by magic, eat it readily, tumble over, and die on the spot. Rats usually die in their runs.—Parties troubled with

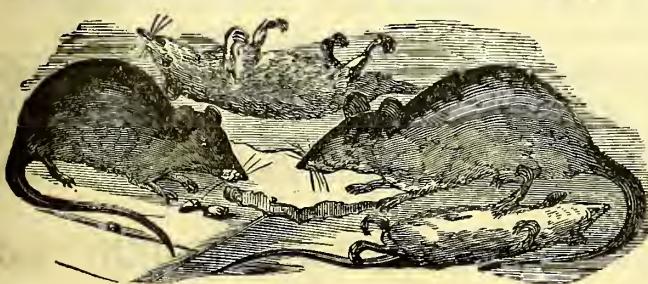
Vermin may be cleared at once, either from Stacks, Houses, or Ships.

TESTIMONIALS.—Thousands might be published.

From Mr. THOMAS COLTON, Agent for Selby.—A friend of mine purchased a Packet of your VERMIN KILLER last night, doubting its efficacy: to-day he called in to say that he had found fifteen dead mice, and had only used part of a packet.—From Mr. EDWARD STURDY, Flemington Mills.—I duly received by post the Packet of your VERMIN KILLER, and found it as represented in your advertisement. It speedily destroyed all the mice in my granary. I enclose 2s, for two more Packets.—Leeds, November 6th, 1857.—I have tried BATTLE'S VERMIN KILLER, and have found it most effective in clearing my premises of LARGE QUANTITIES OF RATS.—THOMAS S. CROSLAND.—Mr. Stead.

Sold in Packets, 3d., 6d., and 1s. each.

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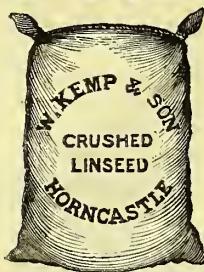
Mr. J. R. BATTLE, Chemist, Lincoln, England.
No Chemist or Storekeeper should be without a supply.

PURE CRUSHED LINSEED,

CONTAINING ALL THE OIL.

GUARANTEED FREE FROM ANY OTHER SEEDS.
NOTHING FINER CAN BE OBTAINED.

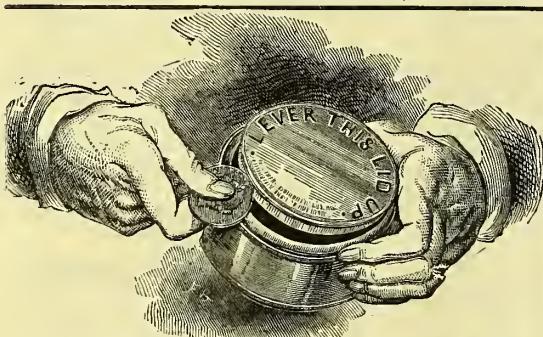
In free 1-cwt. bags, 18/6 cwt. Special quotations for 5 cwt. and upwards.



W. KEMP & SON,

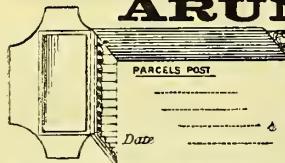
Seed Crushers and Merchants, HORNCastle.

London Agents—Messrs. BARCLAY & SONS, 95 Farringdon Street, who hold stock and supply 1-cwt. bags at above price, and smaller lots.



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(GRIFFIN'S PATENT),

19 Kirby St., Hatton Garden, London, E.C.



ARUNDEL & MARSHALL'S PARCELS POST BOXES FOR BOTTLES, &c.,

Are perfectly secure and safe for transmission through the Post.

TO BE HAD OF ALL DEALERS.

2 oz., 3 oz., 4 oz., 6 oz., 8 oz., 10 oz., 12 oz., 16 oz., kept in Stock.
Folding Bottle Cases of all Descriptions and Sizes. Price List on application.

PENN STREET WORKS. HOXTON. LONDON. N.

THE "ECLIPSE" PARCEL BOX,

(WOOD) NUTTER'S PATENT.

Simple, Cheap, and Efficient, for Post, Rail, or Messenger. In sizes for all purposes.
SPECIAL BOXES FOR BOTTLES (LINED AND UNLINED) FOR CHEMISTS, WINE MERCHANTS, &c.

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MANUFACTURERS OF SMALL WOODEN BOXES.

PAPER BOX MAKING MACHINERY

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MANUFACTURED BY

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THUMB-HOLE MACHINES, &c.

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New Street, Miles Platting, MANCHESTER.

THE "PATENT CORRUGATED" POSTAL BOX

PERFECT SECURITY ENSURED.

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G. W. MUNT, Cross Street Works, HATTON GARDEN, E.C.

The "Patent Corrugated" Paper supplied cut to any size.

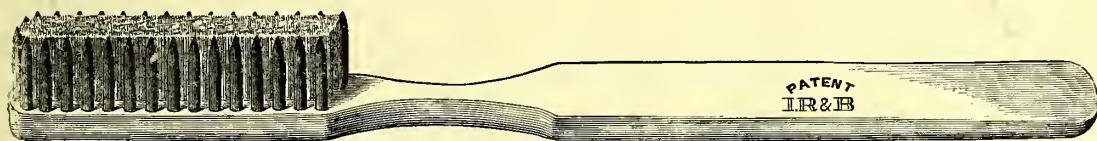
Send for Price List.

S. MAW, SON & THOMPSON'S

ROYAL PATENT

I. R. & B. TOOTH-BRUSHES,

MADE OF INDIA-RUBBER & BRISTLES.



PRICE TO THE TRADE, 8/- PER DOZEN.

From *THE JOURNAL OF THE BRITISH DENTAL ASSOCIATION*, Jan. 15, 1884.**NEW INVENTIONS.****MESSRS. MAW'S PATENT I. R. & B. TOOTH-BRUSHES.**

WE have received from Messrs. Maw & Co., of Aldersgate Street, specimens of a new pattern Tooth-brush, with the above designation, which they are about to bring under the notice of the profession. The initials refer to the "India Rubber and Bristles," of which the brushes are composed. They consist of a narrow bristle brush of the ordinary type, surrounded by a single row of stems of soft red rubber of nearly the same length. They are both efficient and pleasant to use, and we should anticipate that the superior durability and elasticity of the rubber will afford so much support to the bristles as to keep them in shape and working order for a much longer time than an equally soft ordinary bristle brush would wear. The chief object of the rubber addition is, however, to prevent abrasion of the gums, and it appears to answer this purpose very satisfactorily. To persons with tender, or partially edentulous mouths, brushing the teeth is an unpleasant and even painful operation; Messrs. Maw's brushes will certainly reduce the discomfort in such cases to a minimum.

MANUFACTURED BY

S. MAW, SON & THOMPSON, 7 to 12 Aldersgate Street, London.

PREPARATIONS OF THE Chevalier Ruspini

I. RUSPINI'S STYPTIC

Stops all External Bleeding and Internal Hæmorrhages.

Bottle, 4/6; Magnum, 10/6.

A Magnum contains as much as 3 Bottles.

II. RUSPINI'S ASTRINGENT TINCTURE, FOR THE TEETH AND GUMS.

This preparation is recommended by the Faculty. Imitations have from time to time been sold under the name of "Ruspini's Tincture." The original Recipe has never been published but remains with the present Proprietor.

A great reduction has been made in the price of this article.

Bottle, 2/9; Magnum, 5/6.

III. RUSPINI'S DENTIFRICE.

Boxes, 1/6, 2/9, 4/6, and 10/6 each, according to size.

IV. RUSPINI'S ELIXIR FOR THE CURE OF TOOTHACHE.

An instant Cure. 1/- each Bottle (2 drachms).

All these Preparations are carefully compounded from the Original Recipes in the handwriting of the Chevalier Ruspini. They are wrapped in blue paper with yellow labels, and the Government Stamp bears the signature Ruspini.

WHOLESALE AGENTS:

LONDON	Messrs. Barclay & Sons. They may also be obtained of
		Messrs. John Sanger & Sons,
		Messrs. Lynch & Co.,
		Messrs. F. Newbery & Son, and
		Messrs. W. Edwards & Son.
EDINBURGH	Messrs. Duncan, Flockhart & Co.
GLASGOW	Glasgow Apothecaries' Co.
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BRISTOL & CLIFTON	Mr. Robert Keevill, 8 York Buildings, and 51 White Ladies Road, Clifton.
CARDIFF	Messrs. Kernick & Son.
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SPECIAL AGENT:

Mr. SILVESTER, Pharmaceutical Chemist, Knutsford.

Dr. C. R. Coffin's AMERICAN DENTIFRICE.

Prepared only by WILLIAM DARLING, Chemist, Manchester. May be had from S. Maw, Son, & Thompson; Barclay & Sons; F. Newbery & Sons; Sanger & Sons; and any Wholesale House in London. Price 2s. per Box, and Family Jars 10s. each.

TO DENTISTS AND CHEMISTS.—Every description of Artificial Teeth made at greatly reduced charges. Best work and best materials only.

An Upper or Lower Set, inclusive of Teeth Rubber, &c., £1 1s. Ditto, ditto, on Platina, £2 2s.

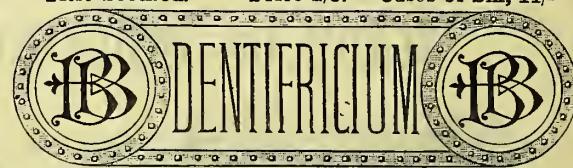
Send for Price List.

Twenty years' experience in mechanical work.

LESSONS GIVEN IN MECHANICAL DENTISTRY.

F. BUCK, 6 Hanover Place, Upper Baker Street, London N.W.

Title Secured. Price 2/6. Cases of Six, 14/-



TRADE MARK 27668.

INVENTED BY A TALENTED PHYSICIAN. Recommended by eminent Surgeon-Dentists. Patronised by the "Monde élégant" as the best and most agreeable liquid Dentifrice yet introduced.

PROPRIETORS—
BARTON BROTHERS, BRIGHTON.

Also Sole Proprietors of the Original
"BRIGHTON GLYCERINE CREAM."

WHOLESALE FROM

Messrs. Barclay, E. Cleaver, Edwards, Newbery, Sanger, Sutton, &c.

OSCAR SUTTON & CO., Preston, Lancashire.



OS TOOTH BLOCK

"THE BEST AND SAFEST DENTIFRICE."

Sold by all Chemists and Perfumers, in elegant Crystal Toilet Casket, price 2/6; also in Patent Metallic Box, price 1/. This celebrated Dentifrice enjoys the approval of the leading dentists and highest authorities in sanitary matters.

Hundreds of Testimonials.

TRADE MARK—REGISTERED.
Dr. J. J. POPE, M.R.C.S., L.S.A., Professor of Hygiene, Birkbeck Institute, Lecturer on the Special Staff of the National Health Society, London (author of "Number One, and How to Take Care of Him"), writes—

"I find your 'Tooth Block' a highly pleasant and most convenient dentifrice. It is as efficacious as it is elegant, and I should say peculiarly adapted for use in youth, from its non-injurious character and mild detergent properties."

Wholesale of Messrs. Evans, Barclay, Hovenden, Maw, Newbery, Thompson Edwards, Sanger, &c., London, and of all the leading Dental Houses; also of Messrs. Felton, Grimwade & Co., Rocke, Tompsett & Co., Melbourne, and the principal Colonial Agencies, &c. Write to above address for particulars.

IMMENSE SALE.

WOODS' ARECA NUT TOOTH PASTE.

Price, 6d. and 1/- per Pot.

Sold by all Wholesale Houses.

AN IMPROVED
NEW
White Stopping.
PRICE. 5s. 6d.

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Sole Agents—
19 GREAT MARLBOROUGH STREET,
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Post Free on receipt
of P. O. O.

WHITE AND SOUND TEETH.

JEWESBURY AND BROWN'S
ORIENTAL TOOTH PASTE.

This old-established and increasingly favourite Dentifrice has been Fifty Years before the Public. It is warranted to retain its properties and keep in good condition in any climate.

The original and only genuine is manufactured solely by

JEWESBURY and BROWN,
CHEMISTS, MANCHESTER,

and is distinguishable by the Trade Mark, printed in red and green, a facsimile of which is annexed. Particular attention should be paid to this guarantee of genuineness, as numerous imitations are offered. Sold universally by Chemists and Perfumers, at 1s. 6d. and 2s. 6d.

The Trade and Shippers supplied by the leading houses in London and elsewhere. Bills and Show Cards forwarded on receipt of address card, and directions for enclosure.

WHITE FOSSILINE WHITE

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We have much pleasure in informing the Trade that we are now in a position to supply **WHITE FOSSILINE** in any quantity at prices below.

WHITE FOSSILINE is a bland, odourless, and perfectly pure hydro-carbon jelly **of our own manufacture**. It forms a cheap basis for Ointments, Pomades, &c., and is much superior to any other, as it cannot become rancid. It is also unsurpassed in itself as a simple dressing for wounds, bruises, &c.

PRICE—1 lb. Tins, 1s. 8d.; 7, 14, and 28 lb. Tins, 1s. 4d.; 56 and 112 lb. Drums, 1s. 3d. per lb., to account.

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EVANS, LESCHER, & WEBB,
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THE SANITARY (REGISTERED) ROSE POWDER,

*"The Perfection of
Nursery Powders."*

A SOLUBLE Antiseptic Dusting Powder for TOILET and CHILDREN'S USE.

RECOMMENDED BY EMINENT MEDICAL AUTHORITIES.

Useful in cases of irritability or chafing of the skin, for unpleasant perspiration, &c. Suitable for application to the tenderest skins of Infants and Invalids, and superior to the ordinary Toilet Powders for Ladies' use.

SPECIALLY ADAPTED FOR HOT CLIMATES.

EXTRACTS FROM THE MEDICAL PRESS, &c.

"It promises well for Nursery Use."—*The Laurel.*
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"Deserves very high commendation. It would be well if it were generally used in Nurseries and for Toilet pu pos's."—*Medical Record.*

"As a high-class toilet powder this preparation is likely to enjoy a good deal of favour."—*The Chemist and Druggist.*

"A very superior article, fragrant, soothing, cleanly."—*The Queen.*

In Boxes, 1/, 1/9, and 3/, and in large Bottles, 5/.

SPECIAL AGENTS:—London: MESSRS. COREYN, STACEY & CO.; GODFREY & COOKE; ROBERTS & CO.; SAVORY & MOORE; and MR. F. ANDREWS, Leinster Terrace, W. Dublin: HAMILTON, LONG & CO., and BUTLER'S MEDICAL HALL. Edinburgh: DUNCAN, FLICKHART & CO. Glasgow: FRAZER & GREEN. Rio de Janeiro: CRASHLEY & CO. Rio Grande and Porto Alegre: HALLAWELL & CO. Madras Presidency: OAKES & CO. Sydney and Brisbane: ELLIOTT BROS. Natal: T. H. DRURY & CO. Pietermaritzburg.

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Proprietors: JAMES WOOLLEY, SONS & CO.,

Manufacturing Pharmaceutical Chemists, MANCHESTER.

SHOW TABLET AND HAND BILLS ON APPLICATION.

**ROYAL
THRIDACE SOAP.**

VELOUTINE SOAP.

**SUPERIORITY OF
VIOLET'S TOILET SOAPS**

(BY MEDICAL CELEBRITIES RECOMMENDED)
is confirmed by experience of half a century.

VIOLET,
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WHOLESALE AGENTS:
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**EWENS' CLARIFIED LARD, MARROW,
SUETS, AND OILS.**

JAMES EWEN & SONS are induced to give further publicity to these articles, the continued demand by all who have used them being satisfactory proof "that where purity of basis" in ointments, &c., is required, they are most desirable.

By their method of purifying, the fats are not chemically altered, but simply divested of all particles tending to decomposition, they are consequently available for the most delicate preparations.

Adeps. Benz. B. P. and Pharm. Lard (*vide P. J. Vol. I. No. 8.*) Direct, "for Cash only," from

JAMES EWEN & SONS' CLARIFIED FAT WORKS,

5 HATFIELD STREET, STAMFORD STREET, S.E.;
Or through any of the Wholesale Houses, with their usual credit,
at a small advance.

CAUTION.—See that each package bears their label with name and weight.

OKELL'S ORIGINAL
MONA BOUQUET

Retail, 1/, 1/9, and 3/6; Wholesale, 9/, 15/, and 30/ per doz.
This much-admired Perfume (prepared by the Widow of the late Joseph Okell), may be obtained from the leading Patent Medicine Houses, Wholesale Druggists, and Druggists' Sundry Dealers.

Applications for WHOLESALE Agencies to be made to the Sole CONSENTEE, THOMAS WEST, Chemist, Stretford, Manchester.

INDEX TO ADVERTISEMENTS.

SEE PAGES 39, 40.

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WHITAKER & GROSSMITH'S PURE WHITE GLYCERINE SOAP.

Richly Perfumed, and guaranteed to contain the necessary quantity of GLYCERINE for effectually imparting to the SKIN the softening and healing properties for which it is so justly famed. 1s. 6d. Boxes of Three Tablets, 12s. per Dozen Boxes.

SELECT TOILET PREPARATIONS, extensively increasing in demand, which attests their excellent quality.

TOILET SOAPS.	Per doz.	BOUQUETS.	Per doz.	POMADES, &c.	Per doz.
Cent-Fleur (copyright)	2/6 Boxes of 3 tablets 20	Cent-Fleur (copyright)	12/	Cent-Fleur (copyright)	8/-, 12/- & 20/-
Jockey Club	1/6 "	Jockey Club Bouquet...	In Glass Stoppered or Sprinkling cap Bottles.	Petroleum Pomade	12/- & 18/-
Sandringham	1/6 "	Ess Bouquet ...	20/	Brilliantine	8/-, 12/- & 20/-
Eucalyptus Oil	1/6 "	Frangipanni ...	28/	Anglo Eau de Cologne	8/- & 12/-
Wild Thyme (Thymol)	1/- "	Pearl of Perfumes ...		Eucalyptus Vinegar	12/- & 20/-
Semi-Cut Bars	1/- Bars of 6 kinds 8/6	Lime Tree Blossoms ...		White Cherry Tooth Paste	8/- & 12/-

Trade Price Lists sent and Orders executed through Wholesale Houses, or direct from the Manufacturers, 1

WHITAKER & GROSSMITH, 22 SILK STREET (REMOVED FROM FORE STREET), LONDON, E.C.

MADAME PATTI'S FACE POWDER.

“BLANCHEUSE,”

One of the Best Preparations now in the Market.
This Article is being largely advertised, and the Trade will do well to keep it in Stock.

In WHITE, IVORY, & ROSE.

1s. size, 7s. 6d. per doz. Packets. 5s. boxes, 42s. per doz.

RECOMMENDED
AND USED BY

Madame PATTI, Mrs. KENDAL,
Madame ROSE HERSEE,
Mrs. BANCROFT, Miss ST. JOHN,
Mrs. BERNARD-BEERE,
Miss A. LINGARD, Miss C. STUART,
Mrs. HERMANN VEZIN,
And the Musical & Theatrical Professions generally.

SOLE WHOLESALE AGENTS:
OSBORNE, GARRETT & CO., 51 Frith Street, Soho,
LONDON, W.
Proprietor, Madame JULLIET, 86 Fleet Street, E.C.

A PERFECT BOON TO MOTHERS!

ROGERS' “NURSERY”

HAIR LOTION.

SOLD BY ALL CHEMISTS AND PERFUMERS.

Observe! Genuine only in Yellow Wrapper, White Label.

WHOLESALE AGENTS.—Barclay & Son; Edwards & Son; Maw, Son & Thompson; Millard & Son; Sanger & Sons; Thompson & Co., Limited; Butler & Crispe; Hovenden & Sons; Newbery & Sons.

F. A. SARG'S SON & CO.'S CHEMICALLY PURE GLYCERINES AND TOILET GLYCERINE ARTICLES.

Transparent Glycerine Soap,

In registered Packets of three Tablets, and in oval Tablets in paper. Warranted to contain 33% of the purest Glycerine.

Liquid Glycerine Soap,

Best preventive against chapped hands, and unrivalled for imparting softness to them, and rendering them clean and white.
See Testimonials of Professor J. von Liebig, Baron; and of Professor F. Wöhler.

Sarg's Double Distilled Glycerine, Chemically Pure,

In $\frac{1}{2}$ lb. and 1 lb. Bottles, should have a place in every nursery on account of its salutary action on the heads of children, relieving them from dandriff, and the roughness of the scalp they are so commonly subject to.

Sarg's New Carbolic Glycerine Soap,

In Boxes of three Tablets, is highly recommended as a most effective disinfection.

GLYCERINE, CHEMICALLY PURE.

SARG'S DISTILLED CHEMICALLY PURE GLYCERINE, 29° Beaumé, in Cases of Four 56-lb. Tins each.

SARG'S DOUBLE DISTILLED GLYCERINE, Chem. pure, 30° Beaumé, in Cases of Four 56-lb. Tins each;
Twenty 5-lb. Bottles, Fifty 1-lb. Bottles, and 100 $\frac{1}{2}$ -lb. Bottles, with Registered Label.

SOLD BY ALL WHOLESALE CHEMISTS AND DRUGGISTS.
SOLE WHOLESALE AGENTS FOR THE UNITED KINGDOM AND THE COLONIES,

SCHMIDEDES, ERBSLOH & CO.,

36 & 37 Monkwell Street, LONDON, E.C.; 14 Market Buildings, Flinders Lane, MELBOURNE;
34 Pitt Street, SYDNEY.

EAU DE COLOGNE

OF THE MOST ANCIENT DISTILLER,

JOHANN MARIA FARINA,

Opposite the Julichs Place, COLOGNE.

ESTABLISHED A.D. 1709.

PRIZE MEDALS:—LONDON, 1851 AND 1862; OPORTO, 1865; PARIS, 1867; VIENNA, 1873.

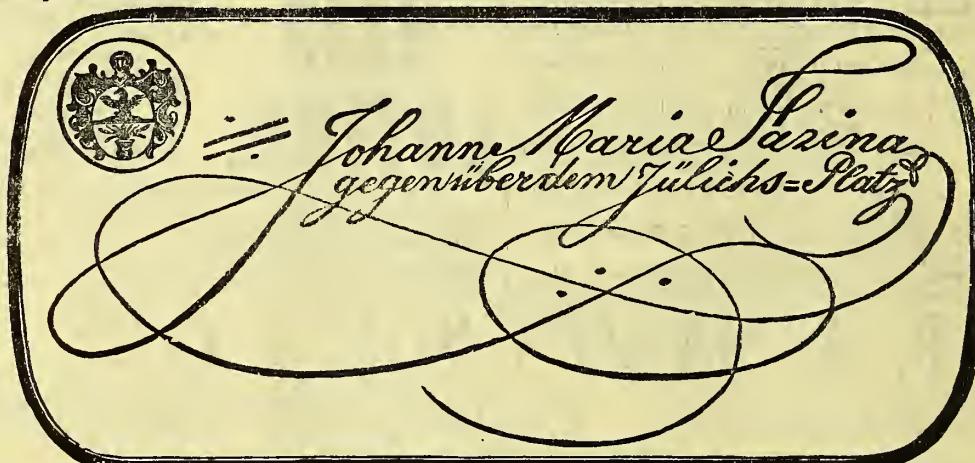
By appointment, Sole Purveyor to Her Most Gracious Majesty Victoria, Queen of Great Britain & Ireland; Their Royal Highnesses the Prince and Princess of Wales; William, King of Prussia;



Albert II., King of Saxony; Alexander II., Emperor of Russia; Francis Joseph, Emperor of Austria; Lewis, King of Portugal; H.R.H. Frederick William, Crown Prince of Prussia.

In consequence of increasing inquiries from the Colonies for my Eau de Cologne, the only genuine, I beg to submit my Price Current.

At the same time I beg to call special attention to the following facsimile of my Trade Mark, for the protection of which I have instituted thirteen suits in the High Court of Chancery, all of which have been decided in my favour.



All similar Labels being more or less imitations of the same, I shall proceed as before against all persons selling or exposing for sale any such imitations.

I only prepare one quality of Eau de Cologne. This quality never varies in the slightest degree, and there has not been the smallest change in the manufacture since the year 1709, when it was invented by my ancestor.

Orders equal to at least 12 dozen short bottles will be promptly executed at 12s. 6d. per dozen, against my bill drawn at three months from the date of invoice, delivered free on board the export ship, at Rotterdam, Antwerp, Hamburg, or Bremen, no charge being made for the case and packing, but insurance charged extra. 7½ per cent. discount is allowed for orders equal to at least 100 dozen, but on no smaller quantities.

I may add that, as I do not draw on the Colonies, all Orders must be accompanied by a credit on some London House, or permission to draw on same at three months.

The Goods can also be shipped in transit through London at a very small additional expense, full particulars of which may be obtained of my Sole Agents for Great Britain and Ireland:—

MESSRS. J. & R. McCACKEN,
No. 38 Queen Street, Cannon Street, London, E.C.

The following are the sizes of my bottles:—

No. 1. Long Green Flasks	—	—	—	—	12 bottles	} to one dozen.
„ 2. Short White Bottles	...	...	...	—	—	—	—	12 „
„ 3. Double ditto	...	...	...	—	—	—	—	6 „
„ 4. Wickered Bottles (small)	...	...	...	—	—	—	—	8 „
„ 5. ditto (medium)	...	...	...	—	—	—	—	4 „
„ 6. ditto (large)	...	...	...	—	—	—	—	2 „

JOHANN MARIA FARINA,

OPPOSITE THE JÜLICH'S PLACE.

SPONGES.

R. CRESSWELL & CO.,

SPONGE IMPORTERS & MERCHANTS,

32 Red Lion Square, London;

AND AT PIRÆUS AND SMYRNA.

ESTABLISHED 1850.

PRIZE MEDALS AWARDED:



**SPONGES OF EVERY KIND AND DESCRIPTION BY THE CASE, PIECE,
OR WEIGHT, SANDLESS OR IN SAND, OR ON STRINGS,
CARDS, AND BLUE CARD BOXES.**

IMPORTANT NOTICE.

The value, quality, and style of R. C. & Co.'s Sponges being so vastly superior, in all respects, to those currently offered, it is to the interest of all Buyers that it should be clearly stated that theirs are the Sponges required, and NOT IMITATIONS. All indents should, therefore, specify that R. C. & Co.'s Sponges must be sent, in order that all loss and inconvenience may be avoided, they having received just and serious complaints from correspondents abroad, whose intentions in this respect are not always carried out.

Messrs. R. C. & Co. beg further strongly to call attention to the fact that, owing to the success attained by them in the preparation of Sponges for the market—the result of 35 years' researches and experience—dealers are offering goods purporting to be the same as R. C. & Co.'s, but which are dyed with deleterious compounds, in no way comparable to theirs, AND ARE VERY CONSIDERABLY DEARER.

FULL PRICE LIST FREE ON APPLICATION.

ALL COMMUNICATIONS TO BE ADDRESSED TO LONDON OFFICES.

LEECHES! LEECHES! LEECHES!

The Oldest, Largest, and Cheapest House in the Kingdom.

ESTABLISHED OVER A CENTURY.

WHOLESALE AND FOR EXPORTATION.

LESSER FRIEDLANDER,

LEECH BREEDER AND MERCHANT,

3 HOUNDS DITCH, LONDON, E.

Quality Guaranteed. Always fresh and healthy direct from reservoirs.

ROBINSON'S ORANGE WINE

(VIN. AURANTII, B.P.)

Specially prepared for Quinine Wine, does not deposit, will keep good in any Climate, and well adapted for Export Trade. Supplied in Casks containing 9, 18, 30, 60, or 120 Gallons. Terms on application.

THE UNIVERSAL CORN AND WART PENCIL.

1 doz. mounted on a handsome Illustrated Show-Card, Retail, 6d. each; Wholesale, 3s. 6d. per doz. It is especially adapted for Export Trade, and may be safely sent to the hottest climates, as each glass tube is hermetically sealed and enclosed in a cardboard case.

N.B.—The above is exempt from Stamp Duty by permission of the Board of Inland Revenue.

CONCENTRATED WATERS.—One Ounce of these Waters added to Forty Ounces of Distilled

Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacopœia, and free from all Chemical impurity. They are prepared to supply a want long felt by Chemists and Medical Men, and by their use a fresh supply of any of the Medicinal Waters may be obtained at a moment's notice. They are not affected by age in any climate. N.B.—Used in the proportion of one part to thirty-two of water they represent the Medicinal Waters of the *United States Pharmacopœia*.

Per lb.	Per lb.	Per lb.	Per lb.
Aqua Anethi, Concent.	4/0	Aqua Cinnam. Ver. Concent.	6/0
" Anisi,	4/0	" Cassiae	4/0
" Camphoræ	4/0	" Flor. Anrant.	8/6
" Carni	4/0	" Flor. Sambuci,	8/6
		" Menth. Pip.	4/0
		" Ang. Con.	6/0
		" Rose	8/6
		" Rose Virgin	10/6
		" Virid.	4/0

The above are put up in Bottles of $\frac{1}{2}$ lb. or 1 lb. and upwards, each of which hasthe Inventor's Protection Label over cork.

Wholesale Agents—Hearon & Co., Maw, Son, & Thompson, Lynch & Co., London; Evans, Sons & Co., Liverpool; Woolley, Manchester; Bewley & Draper, Hunt & Co., Dublin; Glasgow Apothecaries' Co., Patrick & Co., Glasgow; Raimes & Co., Duncan Flockhart & Co., J. Mackay & Co., T. & H. Smith & Co., Edinburgh; Foggit, Thirk: Goodall & Co., Leeds; J. Richardson & Co., Leicester; Slinger & Son, York; McKesson & Robbins, New York. Special terms for large quantities may be had from

B. ROBINSON. Distiller and Brewer of British Wines, Church St., Pendleton, Manchester.

CALLICURA.

“ CALLICURA.” THE CERTAIN CORN CURE.

REGISTERED.

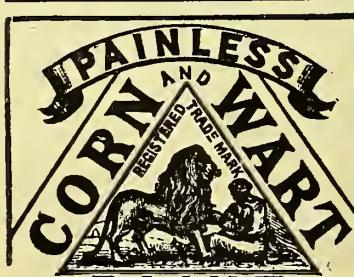
PRICE, 1s. 1d.

Wherever introduced a large sale ensues, as the Cure is a fact. Recommends itself, and so ensures a continually extending demand. “ CALLICURA ” is not a caustic, but merely a simple paint, a few applications of which deadens and kills the worst corns, so that they may be painlessly removed entire in a few days. Corns of 30 years' standing have been entirely eradicated when all other remedies have failed. The numerous Testimonials that are constantly being received testify to the fact that a Certain Cure has at last been found.

Attractive Handbills, with Name on, enclosed to any Wholesale House for Home or Foreign Trade.

Sold Wholesale by the usual London Houses. Sole Proprietor—

J. R. FAULKNER, 33 Ladbroke Grove Road, Notting Hill, LONDON, W.



Used and recommended by several eminent Physicians.

A PAINLESS & UNFAILING REMEDY.

This preparation has the advantage over similar preparations in being quite painless. After 2 or 3 applications the Corn—which will be destroyed—can be easily picked out, leaving the part healthy and free from pain.

It is put up in cases containing a Bottle of Paint, Adhesive Plaster, and Camel-hair Pencil, fixed in dozens, on neatly-bronz'd show-cards, with counter bills.

Sample free by post, 7d.

Prepared only by the Inventors, J. HARGREAVES & SON, Chemists, 108 Fylde Road, Preston.

London Depôt: 1 & 2 Albany Avenue, E.C. Liverpool Depôt: 149 Duke Street Sold by all Patent Medicine Warehouses and Druggists' Sundriesmen.

AGENTS WANTED IN THE COLONIES.

Robare's Aureoline,

OR

GOLDEN HAIR WASH.

The attention of the Trade is respectfully called to the above Article, now having a large sale, and giving an excellent profit to the Retailer.

5/6 size, 36/ per doz. 10/6 size, 72/ per doz.

SOLE WHOLESALE AGENTS—

R. HOVENDEN & SONS, LONDON.

Notice to the Trade.

GENUINE EAU DE COLOGNE

MANUFACTURED BY

JOHANN MARIA FARINA,
JULICH'S PLATZ No. 4,

A DESCENDANT FROM THE

Original Manufacturer of this Valuable Perfume,
IS KNOWN THROUGHOUT THE WORLD AS

No. 4,

AND SOLD BY ALL THE LEADING WHOLESALE HOUSES.

In 2 oz. Bottles.

In reputed $\frac{1}{2}$ -Pint, Wickered.

In 4 oz. Bottles.

In reputed Pint, Wickered.

In 6 oz. Bottles.

In reputed Quart, Wickered.

In 8 oz. Bottles.

In 4 oz. Bottles, Wickered.

JOHANN MARIA FARINA,
JULICH'S PLATZ No. 4,
COLOGNE - ON - THE - RHINE.

By Special Appointment to the Prince of Wales and to several Imperial and Royal Courts.

Possessor of PRIZE MEDALS and DIPLOMAS of the Exhibitions at LONDON, 1851; NEW YORK, 1853; LONDON, 1862; OPORTO, 1865; CORDOVA (Argentine Republic), 1871; and at VIENNA, 1873; SANTIAGO (Chili), 1875; PHILADELPHIA, 1876; CAPE TOWN (South Africa), 1877 (Gold Medal); SYDNEY, 1879; and MELBOURNE, 1880.

Sole WHOLESALE Agents for the United Kingdom and Colonies,

FICKUS, COURTENAY & CO.

ST. DUNSTAN'S BUILDINGS, GREAT TOWER STREET, LONDON.



THE CROWN PERFUMERY CO.,

177 New Bond St., London,



Beg to draw the attention of Chemists, Druggists, and Perfumery Dealers to their Fine Perfumes and Fancy Soaps, for the excellent quality of which

SEVEN PRIZE MEDALS HAVE BEEN AWARDED.

Concentrated Essences of Great Fragrance and Strength:—

Tanglewood,
Crown Bouquet,
Mathiola,
Stephanotis,

White Rose,
Jockey Club,
Ess Bouquet,
Wood Violet,

Frangipani,
Opopanax,
Ylang Ylang,
Isle of Wight Bouquet.

16/, 20/, 28/, 48/, and 84/ per doz.

SUPPLIED IN BOND FOR EXPORT AT GREATLY REDUCED PRICES.

THE CROWN SOAPS are prepared with great care from the purest materials, delicately perfumed, and very lasting.

BROWN WINDSOR, HONEY, ALMOND AND GLYCERINE, ROSE, &c.—In Card Boxes of 3 tablets each, 8/- and 12/- per dozen boxes; also in Wood Boxes of 7 or 14 lbs., 64/-, 74/-, 84/-, and 120/- per cwt.

PURE COAL TAR SOAP.—Each tablet enveloped in tin-foil. 27s. per gross. The well-known disinfecting properties of this Soap have caused it to be in universal demand. Its regular use, especially in warm climates, quickly allays all irritation of the Skin, whilst its agreeable odour induces a feeling of freshness and comfort not attainable by any other means.

OPALINE SOAP, FOR THE TOILET AND NURSERY.—Absolutely pure, delicately scented, and very emollient. 4/- per dozen tablets.

OPALINE TOOTH PASTE, the New Fragrant Dentifrice, 8/- per doz.

OPALINE FACE POWDER, 3/6 and 7/- per dozen packets; 15/- per dozen boxes.

Indents may be forwarded through any English Commission Merchant or Drug House.

ALL COMMUNICATIONS SHOULD BE ADDRESSED TO THE MANUFACTORY,

NEW FAIRFIELD WORKS, OLD BAILEY, E.C.

GREENSILL'S FAR-FAMED MONA BOUQUET

THE ORIGINAL AND ONLY GENUINE.

The great popularity of this exquisite Perfume is a proof of its excellence and superior qualities.

T. S. GREENSILL, Chemist, Douglas, Isle of Man
Inventor, Proprietor, and Maker.

AGENTS—LONDON: Sanger; Maw; Edwards; Newbery; Mather; Baile; Whittaker & Grossmith; Hovenden; Parton & Osborne; Butler & Cripe; Tidman & Son; Barrow & Squire; Wright, Layman & Umney; Jno. Thompson; Burgoine, Burbridge & Co.; Grimwade, Ridley & Clay; Biss Brothers; Lynch & Co. LIVERPOOL: Evans, Sons & Co.; Clay, Pod & Case; B. Sumner & Co.; Raines & Co.; Ayrton & Saunders. MANCHESTER: J. Woolley; Lynch & Bateman; Jewsbury & Brown; Mather. EDINBURGH: Duncan & Flockhart. DUBLIN: McMaster; Hodgson. YORK: Sutcliffe & Headley; Clark, Bleasdale. THIRSK: Wm. Foggett. BRISTOL: Ferris & Co. LEEDS: Goodall & Backhouse. BIRMINGHAM: Churchill & Son; P. Harris & Co.; Parton & Osborne; Southall Bros. & Barclay.

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Registered Trade Mark—“Tower of Refuge Douglas Bay”

ORTH'S GLYCERINE.

Manufacturer: G. H. ORTH, Barmen.

S. G. 1,260, Double Distilled, Perfectly Colourless and Odourless, will stand every chemical test. Lower S. G.'s and inferior qualities also supplied.

LONDON AGENT—

H. RUBECK, 14 MINCING LANE, E.C.

Samples and Prices on application.

RIMMEL'S NEW SANITARY APPLIANCES.



RIMMEL'S AROMATIC OZONIZER, a fragrant powder which, simply spread on a plate in apartments or places of public resort, evolves the refreshing and healthy emanations of the Pine and Eucalyptus, and produces a quantity of *Ozone*, the great air purifier. Its clean and portable nature renders it far preferable to liquid disinfectants. It is in use in the principal Hotels, Clubs, and Theatres, and also in the Saloons and Cabins of several Lines of Steamships. In 4-oz. Tins, 1s.; 1-lb. Tins, 3s. 6d.; Spreading Plate, 6d.

RIMMEL'S OZONIZED EAU DE COLOGNE, LAVENDER WATER, or FLORIDA WATER, sprinkled on a pad hung up in the air, destroys bad smells and noxious effluvia in sick rooms, closets, &c. It is recommended also to be used on the handkerchief when attending crowded places, visiting the sick, or travelling by land or sea. Price, 2s. 6d. and 5s. per Bottle; Pad, 1s.

RIMMEL'S AROMATIC OZONIZED CASSOLETTE, to carry in the pocket and preserve from infection, 6d. N.B.—500 detailed prospectuses, containing certificates and testimonials, sent with name and address to every purchaser of 3 dozen Aromatic Ozonizer, 1s. size.

SOLD BY ALL CHEMISTS AND DRUGGISTS. THE USUAL ALLOWANCE TO THE TRADE.

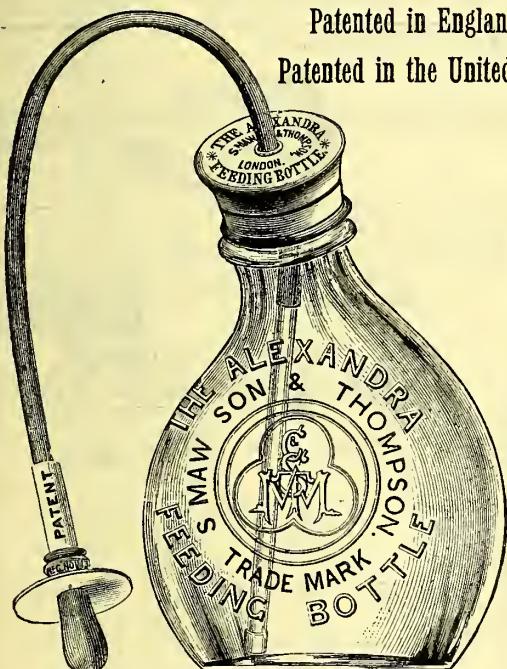
EUGENE RIMMEL, 96 STRAND, LONDON.

PERFUMER TO
H.R.H. THE PRINCESS OF WALES,

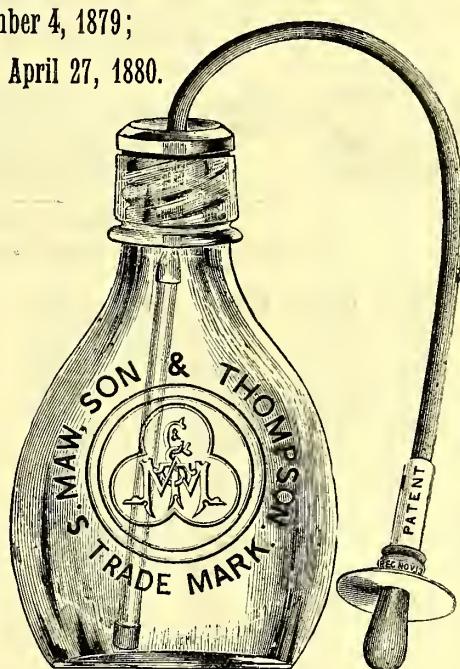
S. MAW, SON & THOMPSON'S FEEDING BOTTLES.

Patented in England, December 4, 1879;

Patented in the United States, April 27, 1880.



THE ALEXANDRA.
(Earthenware Cap.)



THE EXPORT.
(Glass Screw Stopper.)

		White Fittings.			Black Fittings.		
Alexandra, Earthenware Caps.....	per doz.	—	7/6	11/-	—	8/6	12/-
Alexandra, Earthenware Screw Stoppers	„	—	—	11/-	—	—	12/-
Alexandra, Glass Screw Stoppers	„	4/-	7/6	11/-	4/9	8/6	12/-
Export, China or Wood Top Corks	„	3/6	—	—	4/3	—	—
Export, 2nd Quality, Wood Top Corks ...	„	2/9	—	—	3/6	—	—
Export, Earthenware Caps	„	—	7/3	—	—	8/3	—
Export, Glass Screw Stoppers	„	4/-	7/6	—	4/9	8/6	—

FOR FURTHER PARTICULARS SEE QUARTERLY PRICE CURRENT, PAGES 69 AND 70.

SPECIAL QUOTATIONS TO WHOLESALE BUYERS.

S. MAW, SON & THOMPSON, LONDON.

MELBOURNE EXHIBITION, 1881, SILVER MEDAL.



1862.



1873.



1876.



Silver Medal.



Highest Award for Sponges.



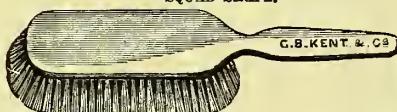
1st Special Award for Brushes.

G. B. KENT & SONS' BEST ENGLISH MANUFACTURE BRUSHES.

ESTABLISHED
106 YEARS.OFFICES: Great Marlborough Street, LONDON, W.
FACTORIES: Bonner Road, Victoria Park, LONDON, E.EMPLOYING
600 HANDS.

KENT'S HAIR BRUSHES.

SQUAB SHAPE.



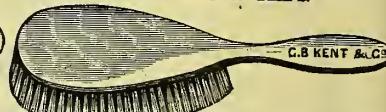
G. B. KENT & CO.

SKITTLE SHAPE.



G. B. KENT & CO.

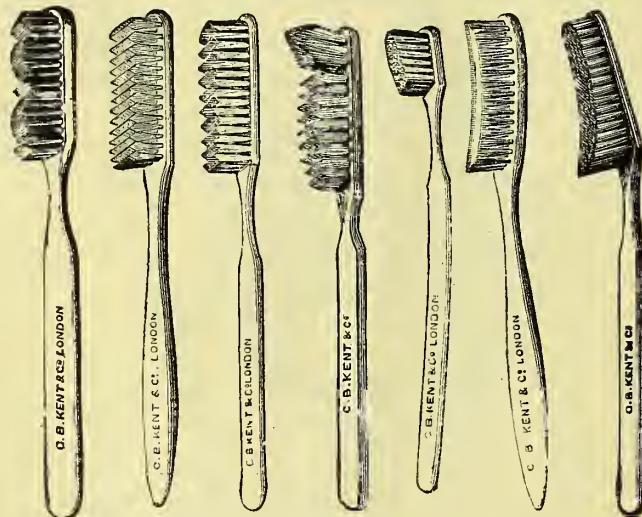
BALLOON SHAPE.



G. B. KENT & CO.

KENT'S TOOTH BRUSHES.

N.B.—Special Factories at Victoria Park are set apart for this one description of Brush.



G. B. KENT & CO.

THE NOVELTY TOOTH BRUSH.

TRIPLE CEMENTED AND EXTRA SECURE.

Depot for America: 91 Fulton Street, NEW YORK.

Price per doz.

First Quality	G. B. KENT & CO	London	6/8
Second Quality	Imperial	Quality	5/0
Third Quality	WARRANTED	LONDON	4/0
Fourth Quality	WARRANTED	SECURE	3/6
Fifth Quality	WARRANTED	SOUND	3/0

Dauber Hair Tooth Brushes ... 4/6 6/0 8/0 11/0 per doz
Children's " " " 3/0 3/6 4/0
Tooth Brush Guards " " Metal, 2/3 Porcelain, 4/6 "
Japanned Wet Brush Holders " 3/0 5/6 6/0 13/0 "

KENT'S NAIL BRUSHES.

ROACHED AND GROOVED.



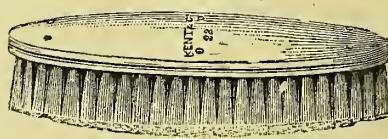
CONCAVE



SENSIBLE

NAIL

OVAL PATTERN.



UNION PATTERN



KENT'S CLOTH BRUSHES in WOOD or IVORY.

KENT'S HAT BRUSHES in WOOD or IVORY.

KENT'S FLESH BRUSHES, Handled or Webbed.

KENT'S SHAVING BRUSHES in Badger Hair, &c., &c.

KENT'S FITTED LEATHER CASES of various descriptions.

KENT'S HAND MIRRORS in Wood and Ivory.

KENT'S COMBS in Ivory, Shell, Indianrubber, &c.

KENT'S "NOVELTY" TOOTH BRUSH GUARD.

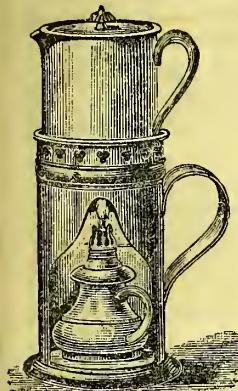
(Telescope pattern, silver-plated.)

G. B. Kent & Sons' Catalogue of Prices for 1883 is now ready, copies will be forwarded on application.

SPONGES.—At 11 Great Marlborough Street is a Sponge Room worth the inspection of the Trade.

BOURNE, JOHNSON & LATIMER

Direct SPECIAL ATTENTION to a few of their most saleable Goods, suitable for the present Season. Chemists who wish to increase their returns, who have not seen these Goods, are invited to make up a small sample order, as they are "having a run."

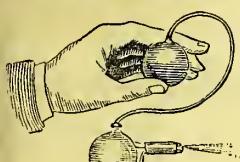


The New Night Lamp and Food Warmer

Is the cheapest Lamp ever offered to the Public.

Price 22/- per doz.

Consumes about a Pennyworth of Petroleum Oil per week.



Glass Throat Spray;

With Indiarubber Ball and Tube.

Price 27/- per doz.

Mentholeum.

In Paper Cases, per doz. 4/; in Nickel-plated Pots, per doz. 8/.

THE "PET" FEEDING BOTTLE

Is made in a variety of styles, the most saleable of which are the

No. 6	Bent Neck, with Wood Top Cork, White Fittings	per doz.	3/6
" 7	" Black "	"	3/9
" 10	" Screw Glass Stopper, White "	"	4/-
" 11	" Black "	"	4 3/4
" 14	" Shilling Size, in Handsome Box, Pot Caps	"	7/6
" 17	" Screw Glass Stopper, White Flint, Black Fittings	"	8/-
" 19	" Metal Caps	"	8/-
" 20	" Gilt Caps	"	12/-
" 21	" China Caps, Gilt Mounts	"	12/-

SPECIAL QUOTATIONS TO LARGE BUYERS.



Japanese "Curl" Papers 4/- doz.

" Sanitary " 8/- "

Antiseptic Respirators, as Dr. Coghill's 16/- "

The New Earthenware Inhaler,

With Burnt-in Directions for use.

Price 18/- per doz.



The only one that can be sold at 2/6.

Chlorate of Potash Pearls.

One dozen in a Glass Top Box, 4/- per dozen.

The Ladies' Sanitary Pad.

(Absorbent Cotton Wool.)

Per gross 14/-; Retail at 2/- per doz.

The Ladies' Calendar Belt,

Suitable for using with above. Per doz. 14/-.

These only need an introduction to secure a permanent sale.

Filled Watch-shape Smelling Bottles.

English Stoppered Bottles, per doz. 4/-, 7/-.

All the above Goods bear a very good profit, and are specially recommended as being very saleable.

10 PER CENT. FOR CASH.

Having extended our Premises by the addition of the adjoining Warehouse, we are prepared to execute all orders promptly. We invite attention to our Show Rooms, and shall be glad to be favoured with a visit from our Country Friends.

BOURNE, JOHNSON & LATIMER

(SUCCESSIONS TO BOURNE & TAYLOR),

WHOLESALE AND EXPORT DRUGGISTS' SUNDRIESMEN,
34 & 35 CASTLE STREET, HOLBORN, LONDON, E.C.

ROSE WATER & ELDER FLOWER WATER

OF THE FINEST QUALITY.

WARRANTED GENUINE. SUPPLIED IN ANY QUANTITY, SMALL OR LARGE.

PRESERVED ROSE BLOOM FOR PERFUMERS' OWN DISTILLATION.

JOHN LEYLAND & CO., ESSENTIAL OIL AND
PERFUMED WATER DISTILLERS, BYFLEET, WEYBRIDGE.
PRICES AND TERMS ON APPLICATION.

PHOENIX

ESTABLISHED A.D. 1815

GENUINE INDELIBLE

MARKING INK



THE LEADING &
STANDARD ARTICLE
PREPARED ONLY BY THE WIDOW OF THE LATE
JOHN MURPHY
CHEMIST AT THE ORIGINAL ESTABLISHMENT
11, NILE STREET, EAST ROAD, HOXTON, N.



NO OTHER ADDRESS — BEWARE OF WORTHLESS IMITATIONS

BEAUTY—WOMAN'S GREATEST CHARM.

NORINA'S EMOLlient,

Prepared from the Recipe of the late Dr. ANDERSON, produces a lovely complexion. It is elegantly perfumed, without sediment, and perfectly harmless. One of the best preparations before the public. Largely advertised and in great request. 4/6 each.

Agents—Messrs. NEWBERY, King Edward Street,
Newgate Street, London.

Office, Show Rooms, and Factory

10a and 46 De Beauvoir Crescent,
(Near Whitmore Bridge.)
DOWNHAM ROAD, KINGSLAND, LONDON, N.

LLOYD RAYNER,
Medical and General Shop Fitter,
SHOW CASE MAKER, FIXTURE DEALER, &c.,

Has removed from 333 Kingsland Road to more commodious premises at above addresses, where the Show Rooms are complete with every description of Shop Fittings, Show Cases, and utensils required by Chemists, Surgeons, Dentists, and all Trades.

Chemists' Secondhand Fixtures, Stock, and utensils bought and exchanged.

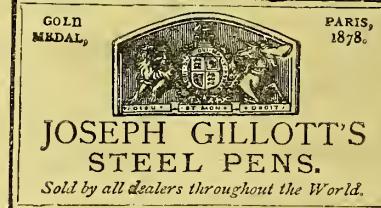
LLOYD RAYNER'S £75 CHEMIST'S SHOP,

Fitted complete with all New Goods, including Glass Show Cases, Gold-Labelled Shop Bottles, Jars, Carboys, &c. If for Export, suitable for any climate, including packing cases, and delivered to any of the London Docks free, £85. The above fittings are suitable for a shop 14 ft. long by 12 ft. wide.

Also a Second Quality Chemist's Shop is fitted complete for £55. If for Export, £65.

Hours of Business, 9 a.m. to 6 p.m. Saturdays, 9 a.m. to 1 p.m.

N.B.—The above Premises are within a few minutes' walk of Haggerston Station, N.L. Railway, or Omnibuses and Tramcars.



FINE HEALTHY CHILDREN!

GELDART'S GALACTOGOGUE,
Or MILK PRODUCER,
IN BOTTLES, 2s. 9d., 4s. 6d. and 11s.

THIS preparation is the greatest boon ever invented for Mothers and Wet Nurses. It also produces a copious flow of rich nourishing milk, which thoroughly satisfies the infant, prevents rickets, promotes easy dentition, and lays the foundation of a strong, healthy constitution. It also prevents debility in the mother whilst suckling, and is a capital remedy for acidity, flatulence, indigestion, &c. If taken during pregnancy it promotes perfect gestation, and effectively prevents decay of the teeth, so common to mothers during this period.

Commands a Ready Sale wherever introduced.
Will keep good in any climate.

Chemists supplied with Handbills through any of the Wholesale Houses.

PREPARED BY
J. GELDART,
PHARMACIST, LIVERPOOL,

Proprietor of the Celebrated PARISIAN STARCH GLAZE,
and Sole Consignee for the United Kingdom of the world-renowned BRAND'S AMERICAN BITTERS.

HOLLOWAYS PILLS & OINTMENT

Have the Largest Sale of any Medicine in the World.

MANUFACTURED ONLY AT

Professor HOLLOWAY'S Establishment,
78 New Oxford St. (late 533 Oxford St.), London.
And sold at 1s. 1½d., 2s. 9d., 4s. 6d., 11s., 22s., and 33s. each Box or Pot.

Chemists and Druggists selling "Holloway's Pills and Ointment" can, on application to the above address, or to the Wholesale House with whom they deal, be supplied free of charge with Handbills and Posters with their name and address printed at foot.

Wholesale Terms see List of "Proprietary Articles" in most Price Currents.

HOUSEHOLD
REQUISITES.

Bathing Caps, Brunswick
Black, Puff Boxes, Cloth, Hair
Nail, Shaving and Tooth Brushes,
Dressing and Tooth Combs, Feeding
Bottles, Filters, Furniture Polish,
Knife Polish, Marking Ink, Medicine
Chests, Mineral Waters, Sponges,
Sponge Bags, Thermometers, Teats, &c.

SPECIALITIES

SUPPLIED TO

DRUGGISTS ONLY.

Any obtainable elsewhere
must have been pur-
chased from
Retail
Druggists.



Brillantine, Cold Cream,
Extract of Limes and Gly-
cerine, Fossiline Pomade, Floral
Pomades (assorted odours), Gly-
cerine Jelly, Perfumery (all kinds),
Pomades (all kinds), Smelling
Bottles, Toilet Soaps (every variety),
Tooth Paste, Violet Powder, &c., &c.

TOILET
REQUISITES.

SAVAR'S

MEDICAL REQUISITES.

Abdominal Belts, Air Cushions, Bed
Pans, Bandages, Elastic Hosiery,
Capsules (Medicinal), Catheters,
Caustic Cases, Chest Protectors,
Electro - Magnetic Machines,
Plasters (all kinds), Fessaries,
Respirators, Syringes, Sus-
pensory Bandages, Splints,
Tooth Instruments,
Trusses, Waterproof
Sheeting, Urinals.

FOR
DETAILED LIST
SEE

CHEMISTS' & DRUGGISTS'

DIARY FOR 1884,

Page 40,

Or send Business Card for

HALF-YEARLY PRICE CURRENT
OFDruggists' Sundries, Patent Medicines,
Proprietary Articles, &c.

DRUGGISTS' REQUISITES.

Bottles of every description, Boxes
of all kinds, Shop Fittings com-
plete, Labels and Labelling,
Covered Pots, Evaporating
Dishes, Funnels, Palette
Knives, Measures, Mortars
and Pestles, Paper, Pill
Machines, Scales and
Weights, Shop Jars,
Show Cases, &c.

SOLE PROPRIETORS—

EVANS, LESCHER & WEBB,
60 Bartholomew Close,
LONDON.

MANCHESTER OFFICE AND SHOWROOM—Exchange Buildings, Cromford Court, Market Street.

BIRMINGHAM OFFICE AND SHOWROOM—Barwick Street, off Livery Street.

H. SUGDEN EVANS & CO., Montreal, Canada, and Boston, U.S.A.

EVANS, SONS & CO.,
56 Hanover Street,
LIVERPOOL.



DRUGGISTS' SUNDRIES, PROPRIETARY ARTICLES, SURGICAL INSTRUMENTS, &c.

TO BE OBTAINED OF

THOMPSON, MILLARD & CO.

(LIMITED),
Curtain Road, London, E.C.

ILLUSTRATED PRICE LIST SENT POST FREE ON APPLICATION.

MAKERS OF

Adhesive Plaster, Marginal Plaster, Court Plaster, Corn & Bunion Plasters,
Vaccination Shields, Trusses, Enemas, & Druggists' Sundries generally.

SOLE PROPRIETORS OF

Oriental Hair Restorer, Macintosh's Caloric Absorber, Brown's Benzine, Osborne's Ladies' Ointment, Millard's Cherry Tooth Paste, "Nigroline" Marking Ink, Millard's Dog Soap, &c., &c.

THE "CLIMAX CORN ANNIHILATOR"
Corn Rubber and Plasters put up in a neat box, price 4/- per doz., less usual discount.

CHEST PROTECTORS.

FELT, SCARLET, and WHITE. Superior Quality.

Single, per doz., No. 0, 5/9; No. 1, 7/6; No. 2, 9/6; No. 3, 11/6; No. 4, 14/-; No. 5, 20/-.

Double, per doz., No. 0, 12/6; No. 1, 15/6; No. 2, 21/-; No. 3, 26/6; No. 4, 33/-; No. 5, 43/-.

Less usual Discount.

RESPIRATORS.

Per doz.	No. 1. 8/-	No. 2. 12/-	No. 3. 14/-	No. 4. 20/-	No. 5. 24/-	No. 6. 30/-	No. 7. 45/-	No. 8. 50/-	No. 9. 56/-
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Less usual Discount.

A Show Case presented with first orders of not less than £2 assorted.

PERFUMES.

Guaranteed of the very best quality, and put up in attractive style.

A handsome Show Stand for Perfumes presented with first orders of £5 assorted.

Prices, per doz., 6d., 4/-; 1/-, 8/-.

2-oz. bottles, per doz., 16/6; or in $\frac{1}{4}$ -lb., $\frac{1}{2}$ -lb., and 1-lb. bottles, per lb., 10/6.

Less usual Discount.

Ess. Bouquet, Jasmine, White Rose, Jockey Club, Moss Rose, New Mown Hay, Heliotrope, Patchouli, Stephanotes, Ylang Ylang, Imperial, &c., &c.

THOMPSON, MILLARD & CO., Ltd.,
CURTAIN ROAD, LONDON, E.C.



NEWBERY'S CATALOGUE

NEWBERY'S CATALOGUE for 1884 JUST
READY. A Comprehensive List of Patent Medicines, Perfumery, and
Sundries, corrected to present date. Post Free on application (with
Trade Card). This List is worth the attention of Export Houses,
Foreign Buyers, and all Sections of the Trade—for whose information
it is issued

THE
"UNIVERSAL" KNEADING AND MIXING MACHINE,
For making
PILL MASSES AND ALL PASTES
FOR
HORSE BALLS, TOOTH PREPARATIONS, LOZENGES, OINTMENTS, ETC.

Price List on application to
PAUL PFLEIDERER, 86 Upper Ground St., Blackfriars, S.E.
City Office—37 FARRINGDON STREET, LONDON:

FRIC TION.

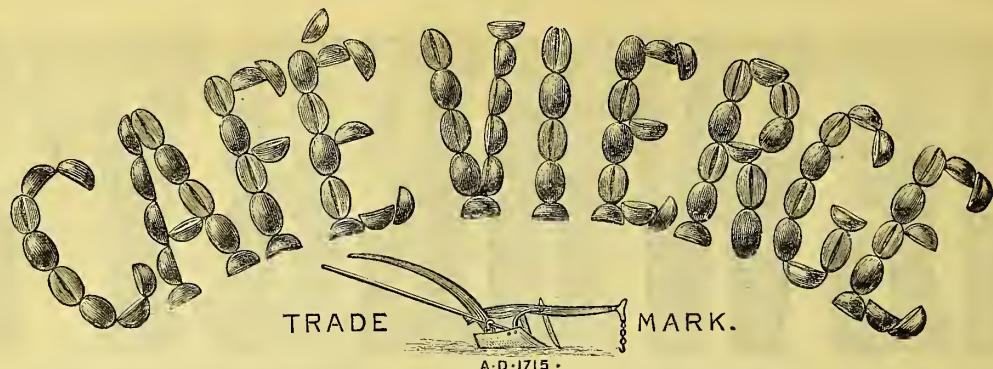
THE MOST PLEASANT MODE OF APPLYING IT TO SKIN IS BY THE
PANSTREPTON (or All-Pliant) FLESH BRUSH.

The best Article ever introduced for the purpose.

PRICES FROM 22/- to 36/- per doz.

Of all WHOLESALE HOUSES or of the SOLE MANUFACTURER,
R. CONDRON, 2 BINGFIELD STREET, LONDON, N.

INDEX TO ADVERTISEMENTS,
See pages 39-40.



THE HIGHLY CONCENTRATED ESSENCE OF PURE COFFEE

GUARANTEED TO CONTAIN NO ADMIXTURE WHATEVER.

By the use of the *Café Vierge*, which is the pure concentrated Essence of the finest Coffees imported, a perfectly clear cup of the choicest flavoured Coffee may be made instantaneously without the least trouble, and with the certainty that it will never vary.

This Essence is extracted at Allen & Hanburys' laboratory by a new and very perfect process, by means of which the delicate flavour and aroma of the Coffee are retained without any of the coarseness and acridity which are so often perceptible in the ordinary brewing of the ground berries. It is exquisitely soft and delicate in flavour, and will be found quite unique, no essence at all comparable in quality and strength having heretofore been offered to the public.

By its use *all waste is avoided*, as it is only necessary to prepare the exact quantity required, a single cup being as easily made as a larger quantity. It may be made *entirely with milk*, and, thus prepared, is more nourishing than the usual household Coffee, which must of necessity contain a considerable proportion of water.

A very pleasant and invigorating beverage is made by adding one or two teaspoonfuls of the *Café Vierge* to a bottle of Seltzer or Soda Water, or a glass of cold milk (with sugar to taste); and used in this way the Essence will be found of great convenience to tourists, travellers, and sportsmen, more especially as, being very highly concentrated, it occupies little bulk. The Essence will also be found extremely useful for flavouring Ices, Creams, Cakes, &c.

THE LANCET, January 5, 1884, writes:—"Messrs. Allen & Hanbury, have produced an excellent essence of coffee, pure and free from the crude taste observable in some samples. The severest test to which a coffee essence can be subjected is the preparation from it of *café noir*. This essence stands the test very well. . . . It is much better than most of the coffee served in English houses, and is really very good intrinsically. The essence is so convenient, saves so much time, and avoids so much waste that it is sure to be popular."

THE CHEMIST AND DRUGGIST, October 15, 1883, writes:—"Under this title (*Café Vierge*) Messrs. Allen & Hanburys and Ridgway & Co. have brought out jointly an essence of coffee which really does give satisfaction. It has no sour taste or smell, but, instead, diffuses in a high degree the purest coffee aroma. One or two teaspoonfuls added to a cup of boiling milk and water make one of the most tempting of beverages."

Price 1/6 per Bottle; Wholesale, 16/- per doz.

IMPORTANT NOTICE.—On and after February 1, the discount on *Café Vierge* will be increased to 10 per cent., making the actual cash price a fraction under 1s. 2½d. per bottle.

Obtainable from Patent Medicine Houses, or direct from either of the Joint Proprietors—

RIDGWAY & CO., Tea and Coffee Merchants, 4 & 5 King William St., City, London;

ALLEN & HANBURY'S, Plough Court, Lombard Street, London.

SAMPLES, CIRCULARS, AND SHOW CARDS FREE ON APPLICATION.

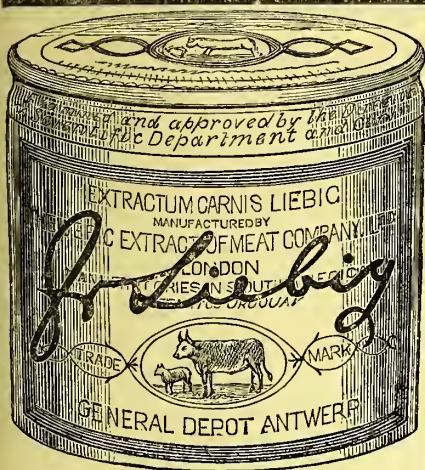
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Acetic Acid	Cement	Electric Appar	Homœop Medens	Paints	Plasters
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Æsulap	Wylcys Chemicals	Hallé & Co.	Gould	Jackson	St. Dalmas
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Duncan					
Macfarlane					
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British Insulite					
Darton (Bells)					
Hallé & Co.					
Wyndham					
Ice					
Harrison					
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Surgical Bailey Bourgeaud Gibbs, Cuxson Haywood Lindsey Snowden	Trusses Bailey Bourgeaud Haywood Lindsey Penfield & Co. Philadelphia S. Co. Savar Seeley	Violet Powders Chubb Rimmel	Vinegar Making. Rothermel's Machine	Wax Cocking (Japan) Fink & Co. (Bees) Hyde & Co. (Sealing and India) Waterson	
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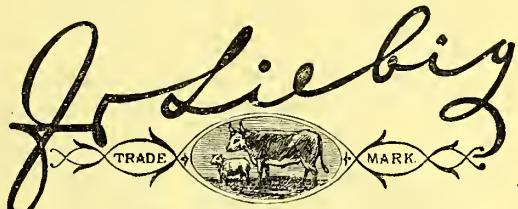
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TO REGISTERED DENTISTS AND CHEMISTS.—For Sale, with tuition (if necessary) and introduction, old-established Chemist's business, with good Dental practice attached; last year's takings £800; chemist's business chiefly prescribing; no heavy trade; stock in very good condition; price, £550. For particulars, write A. B., care of J. Cooper, Chemist, Kingston Cross, Portsmouth. No agents.

SOMERSET.—Vendor, retiring, offers Business, Light General Trade; shop well fitted; stock good and salable, returning over £500; good profit; established over 30 years. Situate in leading thoroughfare; excellent premises; side entrance; rent £30, or lease if required; stock and fixtures at valuation or offer. Apply, in the first place, to 148/37, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

CHEMISTS AND OTHERS.—To be disposed of, a Business taking £5 per week, mostly prescribing, and if with Dentistry added a much larger return can be made. Also the business of a Hosiery and Haberdasher; two separate shops; plate-glass modern front; eight rooms, and every convenience; large productive fruit garden; in a fast-growing neighbourhood a few miles from London, situate in the High Street, and near a station, S. W. R.; price £350 for good stock in both shops, fittings, fixtures, and numerous house-fittings; the whole held on agreement at £25 per year, taxes about £2. 157/30, Office of THE CHEMIST AND DRUGGIST 42 Cannon Street, E.C.

PARTNERSHIPS.

PARTNERSHIP, or for Sale.—An opportunity presents itself for a Gentleman with knowledge of the wholesale, either purchasing a valuable Wholesale and Retail Chemist and Druggist's old-established business, West of England, or providing an equal capital of about £1,500 to join another (chemist) in carrying it on. Full particulars of W. H. Phillips, 1 Small Street, Bristol.

PARTNERSHIP Wanted.—A Registered Chemist, who has left the trade and established a professional business (the only one of its kind in the world), which is capable of very great extension, and with excellent profits, desires an active Business Man as Partner; capital required, £500 to £1,000. So exceptional an opportunity seldom met with; only principals, stating full particulars of their experience, need apply. Dixon, East View, Charnock Lane, Handsworth, Birmingham.

TO LET.

A ROW OF NEW SHOPS has been erected in Ossulston Street, Euston Road, in connection with dwellings for 500 families; one would be suitable for a Chemist and Druggist's Shop, with four rooms; rent 40/- per annum; the shop-front will be put in to suit tenant.

CANNON STREET, CITY.—To be Let, a portion of No. 42, over the Office of this Paper, having an entrance in Cannon Street, and in Bow Lane, fronting Queen Victoria Street, and immediately opposite the Mansion House Station. Floors average 2,000 superficial feet. Particularly adapted for Manufacturers' London Show Rooms. May be viewed, and further particulars had, on application to the Publisher of THE IRONMONGER, 42 Cannon Street, E.C.

EMPLOYERS WANTING ASSISTANTS.

JUNIOR CLERK required by Clarke, B'eadale, Bell & Co., York; must have had previous experience.

WANTED, a Pushing Junior Assistant for a country mixed trade, with plenty of time for study. A. E. Pride, Old Basford, Nottingham.

ASSISTANT Wanted, for the West Indies (indoors). Apply by letter, stating age, previous engagements, qualifications, and salary required, to A. B., Messrs. J. H. Schrader & Co., 31 St. Mary Axe, E.C.

WANTED, an energetic Junior Assistant to be at Branch or Principal Establishment; none need apply whose reference will not bear strict investigation. E. C. Ashford, 32 Gold Street, Northampton.

WORKING LABORATORY MAN.—Wanted, at once; principally required for "Granular Preparations"; must be sober, industrious, and thoroughly efficient. Lorimer & Co., Hargrave Park Road, London, N.

DRUG AND GROCERY.—Assistant required, accustomed to the two trades; aged about 22; indoors. Apply, with full particulars as to experience and where obtained, to John C. Coles, Chemist, Grocer, and Wine and Spirit Merchant, Market Place, Chippenham, Wilts.

ASSISTANT, well up in his business, for a General country trade; one who could help keep the books of a Mineral-water Manufacturer. Address, stating salary required (indoors). G. Johnson, Godalming, Surrey.

WANTED, a competent indoor Assistant, not under 24, an accurate dispenser and good counterman, who is well acquainted with first-class retail; short hours, two kept; state age, height, references, experience, and salary required, with carte (to be returned). C. L. Metcalfe, Pharmacist, 13 Whitefriargate, Hull.

ASSISTANTS WANTING SITUATIONS.

ASSISTANT, Chemist and Druggists'; aged 28; height, 5 ft. 6½ in.; B., 75 Westgate, Bradford.

TEMPORARY; a Gentleman of long experience desires an Engagement to take charge in illness or absence; the highest references. S. T., Nunn's Library, 36 Ladbroke Grove Road, Notting Hill, W.

WHOLESALE Drug or Sundries trade, by Advertiser; aged 22½ years; willing to go abroad; 5 years' retail and 2 years' wholesale experience. "B," 6 Vincent's Road, Dorking.

WHOLESALE.—As Assistant; London preferred; 5 years' Retail experience; aged nearly 21; tall. T. Page, 136 High Street, Stourbridge.

ASSISTANT, in good class Retail and Dispensing; competent dispenser; aged 26; height, 5 ft. 8 in.; Minor qualification; disengaged. M. P. S., 28 Borough Street, Brighton.

ASSISTANT or Dispenser; easy terms in exchange for time to A. prepare for Examination. S. Hassall, 71 Charles Street, Hanley, Staffordshire.

REGISTERED CHEMIST; 42; desires Situation as Manager or Senior; long experience and excellent references. 37 Chester Road, Macclesfield.

MANAGER, Permanent or Temporary; outdoor; qualified; 13 years' varied experience; first-class references; at 30. "Chemicus," 2 Baird Street, Preston, Lanc.

MANAGER to Chemist; 25 years' experience; 12 years on own account; married. 156/25, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

A GENTLEMAN, with many years' connection on the Road, seeks a good Commission, or a Firm who would pay half expenses to represent them among Grocers and Chemists throughout England and Scotland; samples preferred light. "Traveler," 149 Bird-in-Hand, Peckham, S.E.

A ASSISTANT; aged 34; height 5 feet 8 inches; single; in or outdoor; good country trade, and single-handed preferred; active; unregistered; churchman; total abstainer; good references and experience. C. N., 12 Chapel Street, Uxbridge, Middlesex.

TRAVELLER.

WILLIAM CASE, who represented CLAY, DOD & CASE for upwards of ten years, seeks a position as Traveller to a leading Wholesale House; is well known to the Chemists, Surgeons, and Veterinary profession, throughout the North West of England, North Wales, and the Isle of Man; highest references as to ability and character, and security if required. Address, 22 Knowsley Buildings, Liverpool.

MISCELLANEOUS.

FOR DISPOSAL.

Rare Occurrence. On account of Debility.

THE Right of Making and Selling one of the most valuable Cough Pills ever brought out (a Specialty). They have now proved their efficacy by their constant every-day sale for more than 20 years past in all parts of the country, which the owner has letters to prove. As they have never been advertised in any public paper their present sale surprises everyone. Were they to be advertised now, being already so well known, their sale would become almost fabulous. For particulars apply to 146/2, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TO CAPITALISTS.—For Disposal, Three Registered Specialties, highly recommended by the Faculty; capable of enormous development of sale in pushing hands. 153/10, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

FOR SALE by Private Contract, the Fixtures, Stock Bottles, Glass Oases, Counter and Shop Fittings, together with Stock-in-trade of a Chemist and Druggist, recently doing a good country business. For particulars and to view same, apply, "Medicus," The Elms, Gosberton, near Spalding, Lincolnshire.

FOR IMMEDIATE SALE.—Retiring from Business. Entire Fittings and Stock of a small Chemist's Shop in the country, including 6 carboys, 2 glass cases, counters, labelled jars and bottles, 2 nests of mahogany-fronted drawers, marble mortar, drugs, &c. No reasonable offer refused. Apply, for further particulars, to Mr. W. Green, 48 Crown Street, Bury St. Edmunds.

CHEAPEST HOUSE IN THE TRADE FOR
ANILINE COLORS,
GOLD AND SILVER LEAF, IMITATION GOLD, DUTCH
METAL, BRONZE POWDERS. *Send for Price List.*
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FOR SALE.

CARMINE.—200 lbs. PURE English manufacture, WARRANTED. A Specialty for Tinting Powders. Paste and solutions dissolve freely in Ammonia, 16s. 6d. per lb.; also 170 lbs. of a superior quality, rich bright colour, at 19s. 6d. per lb. Specimen can be had for price quoted per post, or 4 lb. at 5s. 3d. to 6s. 3d., or it can be seen and bought from bulk. Terms net cash, or London references. Charge for 4-lb. specimen will be deducted off all orders of 7 lb. Satisfaction will be guaranteed.—G. MORRIS, 22 Paradise Street, Finsbury, London, E.C. [Name "Schapmann" in last month was an error.]

"THE ILLS OF LIFE."
"TOOTHACHE," "CORMS," & "CHILBLAINS."
WARRANTED CURES FOR THE ABOVE.

These preparations are thoroughly practicable, pay well, are easily made, and may be sold with confidence. Recipes, 1/- each; 3 for 2s. 6d., with full directions, post free. Please note my advertisement in "Exchange Column." Terms—"SATISFACTION GUARANTEED." Detailed Printed Lists free.

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PLAISTERS

ON WHITE LEATHER ONLY,
AS SUPPLIED TO THE
ARMY & NAVY AT SCUTARI HOSPITAL.

LEATHER PLAISTERS.	No.	Full Size of Leathers.	Retail Prices.	Per doz.	Mather's Royal Balsamic Plaister.	Tomlinson's Cod Liver Oil.	Plain Plaister.	Emp. Roborans or Calefaciens	Emp. Belladonna No. 1.	Emp. Belladonna No. 2.
Heart Shape	1	3 x 4 $\frac{1}{2}$	1 size.	„	0 8	0 8	0 8	0 8	1 4	1 0
	2	4 $\frac{1}{4}$ x 6	1 $\frac{1}{2}$ "	„	1 0	1 0	1 0	1 0	2 0	1 6
	3	4 $\frac{1}{2}$ x 7 $\frac{1}{2}$	2 "	„	1 6	1 6	1 4	1 4	2 8	2 0
	3 $\frac{1}{2}$	5 $\frac{1}{2}$ x 7 $\frac{1}{2}$	3 "	„	2 3	2 3	2 0	2 0	4 0	3 0
	4	6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	4 "	„	3 0	3 0	2 8	2 8	5 4	4 0
	5	8 x 9 $\frac{3}{4}$	6 "	„	4 6	4 6	4 0	4 0	8 0	6 0
Long Shape	1	2 $\frac{3}{4}$ x 4	1 "	„	0 8	0 8	0 8	0 8	1 4	1 0
	2	4 $\frac{1}{4}$ x 6 $\frac{3}{4}$	2 "	„	1 6	1 6	1 4	1 4	2 8	2 0
	2 $\frac{1}{2}$	4 $\frac{1}{4}$ x 8 $\frac{1}{4}$	3 "	„	2 3	2 3	2 0	2 0	4 0	3 0
	3	5 $\frac{1}{4}$ x 9 $\frac{1}{4}$	4 "	„	3 0	3 0	2 8	2 8	5 4	4 0
	4	6 $\frac{1}{2}$ x 11	6 "	„	4 6	4 6	4 0	4 0	8 0	6 0
	5	7 $\frac{1}{2}$ x 14 $\frac{1}{2}$	8 "	„	6 8	6 8	6 0	6 0	12 0	8 0
Oval Shape	1	4 $\frac{1}{4}$ x 6 $\frac{1}{2}$	2 "	„	1 6	1 6	1 4	1 4	2 8	2 0
	2	6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	4 "	„	3 0	3 0	2 8	2 8	5 4	4 0
	3	7 $\frac{1}{4}$ x 9 $\frac{3}{4}$	6 "	„	4 6	4 6	4 0	4 0	8 0	6 0
Saddle Shape	1	6 $\frac{1}{4}$ x 12 $\frac{1}{4}$	6 "	„	4 6	4 6	4 0	4 0	8 0	6 0
	2	7 x 15	8 "	„	6 8	6 8	6 0	6 0	12 0	8 0
	3	8 x 16	12 "	„	8 8	8 8	8 0	8 0	15 6	12 0
Wrist PLAISTER	1	3 x 10 $\frac{1}{4}$	3 "	„	2 3	2 3	2 0	2 0	...	...
Knee PLAISTER	2	4 $\frac{1}{4}$ x 15	6 "	„	4 6	4 6	4 0	4 0	...	...

BREAST PLAISTERS.

	No.	Size of Leather.	Retail Prices.	Per Doz.
 Emp. Plumbi, for Ladies' Breasts	1	Diam. 6 $\frac{3}{4}$ in.	d. 4 size	s. d. 2 8
" " Spread on Chamois	2	" 7 $\frac{1}{2}$ "	6 "	4 0
" " "	1	" 6 $\frac{3}{4}$ "	...	4 0
" " "	2	" 7 $\frac{1}{2}$ "	...	6 0
	No.		No. 1 Quality. Per doz.	No. 2 Quality. Per doz.
Emp. Belladonna, for Ladies' Breasts	1	Diam. 6 $\frac{3}{4}$ in.	5 4	4 0
" " Spread on Chamois	2	" 7 $\frac{1}{2}$ "	8 0	6 0
" " "	1	" 6 $\frac{3}{4}$ "	8 0	6 0
" " "	2	" 7 $\frac{1}{2}$ "	12 0	9 0

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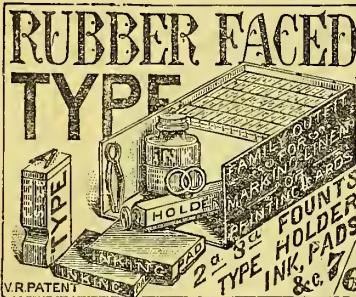
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SIMPLICITY.
ALWAYS READY
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EXCHANGE COLUMN.

TERMS.—Announcements are inserted in this column at the rate of one halfpenny per word, on condition that name and address are added. Name and address to be paid for. Price in figures counts as one word.

If name and address are not included, one penny per word must be paid. A number will then be attached to the Advertisement by the Publisher of THE CHEMIST AND DRUGGIST, and all correspondence relating to it must be addressed to the "Publisher of THE CHEMIST AND DRUGGIST, Colonial Buildings, Cannon Street, London, E.C., the envelope to be endorsed also with the number. The Publisher will transmit the correspondence to the advertiser, and with that his share in the transaction will cease.

Dental and Surgical.

Air cushion, fig. 1 Maw's, 21-inch, never used, 1s. Hudson, 192 Fulham Road, S.W. Mnemonic for Dental Students, showing at a glance how to extract teeth; post free, six stamps. W. Cole, jun., 115 High Street, West Cows.

Dental chair and pedestal spittoon, price 8/-; also about 20 pairs Maw's and Ash's tooth-forceps, mostly new. Mr. Hulme, 97 Ebury Street, London, S.W.

Giving up the Mechanical.—Three hundred odd pin-teeth, 10s. per 100; 200 diatrics, 6s. 100; 2 lbs. orange rubber, 6s. lb.; 1 lb. pink rubber, 7s. lb. E. Phelps, Barton Hill, Bristol.

Ash's 12s. flattening-mills, new, 8/-; S. S. White, dental engine, with right-angle attachment, 70 bits, &c., 7s. 10s.; new portable gas apparatus, 60s.; Ash's "Scagliola" pedestal spittoon, cost 5/- 10s., price 3/- 10s.; Ash's hand spittoon, cost 12s., price 8s.; Ash's "Morrison" chair, scarcely used, cost 35/- 5s. 6d., price 23/-; Barth's economic gasholder, cost 5/- 5s., price 40s.; new light office-lathes, 40s. each. S. Bateyman, 44 Carter Street, Greenheys, Manchester.

A 70-grain electroplated pessary-mould for six, as good as new, price 11s. C. B. M., 1 Templeton Rd., West Green, Tottenham, N. Magneto-electric machine (Maw's fig. 30), with spine brush; 20s. Hudson, 192 Fulham Road, S.W.

Drugs and Chemicals.

About 1½ cwt. common Barbados aloes; what offers? Wilson, Lenton, Nottingham.

24 lbs. arnica root, 12s.; brass counter scales, with drawer, as Maw's fig. 1, second size, 21s. 15/- 16/-

Small quantity of Symes' Thibet musk, in ½-oz. bottles, 22s. each. Richardson, Chemist, Alford, Lincolnshire.

84 lbs. gum thus, 2d. lb.; 5 lbs. bismuth subnit., 7s. lb.; 3 lbs. ol. rosmar., 2s. lb. John Taylor, Chemist, Rochdale.

Two lbs. bismuth subnit., 3 lbs. chloral hydrate crystals, 4 lbs. ferri et am. cit., 1½ lb. ferri cit. et cinchonie, for 50s., carriage free. Kendall, Blyth.

6 oz. moschus grain, 75s. oz.; 28 lb. opium, Turkey, 11s. 6d. lb.; 7 Winchs. of ess. lemon, 5s. 6d. lb.; 6 bottles otto virg., original, 25s. oz.; pulv. aloes socot. 2s. 3d. lb. "Druggist," 21 Piercefield Street, Haverstock Hill, N.W.

Proprietary Articles.

One gross Bradbury's sheep-dip, 1s. packets, 4s. per doz. Moule, Redditch.

Two gross Bennett's manna cakes, 17s. 6d. Guthrie, 6 Mulberry Place, Edinburgh.

12 lbs. Fullwood's roll annatto, at 2s.; a few saleable patents, 8s. and 21s.; send for list. G. Jackson, 43 Bold Street, Moss Side, Manchester.

1s. 1½d. articles.—1 Jenkyns' pills; 3 Warner's do.; 1 Torrens' do.; 1 Miner's do.; 3 Powell's do.; 1 Clayton's do.; 1 De Roos' do.; 1 Smith's pectorine, soiled; 3 Allen & Bell's pills, soiled; 1 Marshall's cerate, soiled; 28 Nash's cough tincture. 2s. 9d. articles.—1 Tod's vitaline; 1 Liebig's chemical food; 4 Johnson's soothng syrup; 1 maltine; 2 De Roos' pilule vita, soiled; 1 Stolberg's voice loz., soiled; 6 Parr's pills, soiled and no wrappers; 6 Bennett's newvo somnia. Five 2s. 3d. Warner's safe nervine; five 4s. 6d. Warner's safe nervine; three 4s. 6d. safe tonic; one 6s. 6d. Warner's safe kidney and liver cure; one 4s. 6d. De Roos' renal pills, soiled. The lot, carriage free, 4/- Kendall, Blyth.

Optical.

Quantity Chemists' Optical Association's spectacles, any sort, at great reduction; offers wanted. 150/18.

Educational.

Microscope (Maw's fig. 4), perfect order; 50s. Hudson, 192 Fulham Road.

Selling for no fault.—Beautiful model microscope, new last autumn; to be sold with all accessories, in cabinet, for 3½ guineas; a genuine bargain. 145/27.

Botany.—The indigenous officinal (medical) plants, beautifully mounted, reduced to 5s. 6d. the set; wild flowers, mounted or loose, 7s. 6d. per 100, all free. Higginson, Newferry.

TW) full-length anatomical plates, coloured; eight anatomical diagrams, coloured, on linen or calico; one full-size skeleton on cloth, black ground; eleven coloured plates, quarto size, cartridge-paper, varnished. Particulars and price for stamped directed envelope to Kendall, Blyth.

Set of illegible autograph prescriptions (original), 2s. 6d., as presented to the Pharmaceutical Society of Ireland for their examinations; 30 prescriptions (catch and difficult) given to dispense at Minor during past 12 months, 2s.; 50 questions asked of successful students at last Minor, 1s. 1d.; lot of cheap, almost new, books. Stamp for list, Saunders, Medical Tutor, 6 Rochester Square, N.W. (Note change of residence.)

Literature.

Pharmaceutical Journal from January, 1881, to December, 1882, complete, unbound; what offers? Tyler, Walton, Ipswich.

"Year-book of Pharmacy," 1876 to 1881 inclusive, 15s. Guthrie, 6 Mulberry Place, Edinburgh.

Pharmaceutical Journal, 1870 to 1883; only three numbers missing; first six vols. bound in half-calf; what offers? Hudson, 192 Fulham Road.

Chemist and Druggist, 1867-1882 inclusive, first ten years well bound, others unbound, all complete and in excellent condition; also nine Diaries; offers requested. Henderson, 45 Eglington Street, Glasgow.

Vol. 5 to 12 inclusive of *Pharmaceutical Journal*, unbound; Humphry's "Treatise on the Skeleton," pp. 620, plates (McMillan), all in good condition; what offers? Ladd's 2-quart tincture-press, 15s., cost 25s. Colledge, Chemist, Newbiggin-by-the-Sea.

To be sold at 6d. each.—36 Journals of the Linnean Society (Botany), cost 3s. each; 26 Linnean Society (Zoology), cost 2s. each; 56 Journals Chemical Society, cost nearly 2s. each; 6 Journals Royal Society. Address, Joseph Platt, 147 Bradford Road, Huddersfield.

Johnson's "Flora of Berwick-on-Tweed," two vols., with plates complete, scarce and valuable, published at 15s., worth double; 1787, "Pharmacopeia Collegii Regalis Medicorum Londinensis," with "Posologic Companion," scarce; J. B. Brown's "Diseases of Women," large coloured plates, 6s. 6d.; set of eye-instruments, in case, 5s.; "Physician's Vade Mecum," 2s. 6d.; "Mannual of Surgery," Sir A. Cooper, plates, 4s. 6d.; Steggall's "First Lines for Chemists and Druggists," 1s. 6d.; Underwood's "Medical Latin Grammar," scarce, 3s. 6d.; also three years' *Chemist and Druggist*, 1880-1883; "Year-book of Pharmacy," 1873, 1874, 1875, 1876. What offers? Drew, 59 Westfield Road, Leeds.

Soda-water Plant.

Barnett & Foster have some second-hand soda-water machinery of their own for sale. Apply, 267 Eagle Wharf Road, Hoxton, N.

Second-hand soda-water plant—several in stock. Address, Brabdy & Hinchliffe, Sandford Street, Ancoats, Manchester.

A second-hand Hayward Tyler & Co.'s beam-action machine, in perfect condition, and as good as new. Apply to H. Favarger, Turnmill Street, London.

A second-hand No. 1 "Medium" Mondollet soda-water machine, complete with generator, copper and glass purifiers, pump, saturator, &c.; it has been thoroughly overhauled, and is equal to new. For particulars, apply for catalogue to H. Favarger, Turnmill Street, London.

Formulae.

Valuable recipe to make oil. lavand. ab flor. exotic, equal to oil. lavand. ang., at a cost per lb. 11s. 6d.; price of recipe, 10s.; sample of oil sent for six stamps. Recipe for lavender water, made from same oil, splendid, cost 2½d. per oz.; price of recipe, 5s.; sample sent six stamps. E. W. Barnes, Chemist, 34 Freeschool Street, S.E.

To chemists doing a trade with surgeons and public institutions, and those desirous of putting up a paying specialty, should send for recipe for making compound syrup of phosphates—thick, bright syrup, well flavoured, never deposits if kept for years; strictly accurate as per published constituents; costs only 3½d. per lb.; very little trouble to prepare; tons a year made from this formula; 5s. A. Johnson, Mr. Kilby, 121 Pyebank, Sheffield.

Special Recipe.—I can offer an invaluable recipe for "Balsamic Cough Linctus" (containing neither opium, morphia, nor any narcotic), of the virtues of which I hold many excellent testimonials. It is a most elegant preparation, brilliant appearance, keeps well, resembles Crosby's Elixir, and costs under 7d. per lb. As the recipe is only sold to one chemist within a 10-miles radius, please write for information, and sample will be sent if district is open; price, with guarantee and full instructions, 10s. All communications strictly confidential. T. Brooks, Chemist, Louth, Lincs.

Fragrant foaming dentifrice (like "Floriline"); marking ink, *sine* silver (aniline), writing executed dental chemicals; effervescent fruit saline (resembles Eno's); magic nergia drops (never-failing remedy); quinine and iron tonic (resembles Pepper's); lime-juice and glycerine (inseparable, white as milk); blue-black ink (non-corrosive, *sine* iron or gall); cherry tooth paste (never ferments; like Gosnel's); brilliantine (inseparable, like Rimmel's); pill-coating (pearly white, no mucilage or mastic used); glycerine jelly (perfectly transparent); crimson marking-ink; hair-restorer (colourless, no deposit, *sine* silver); aromatic vinegar; toilet vinegar (as Rimmel's); plate-powder (like Stevens' "Silicon"); Oleum Flavum Conc., for pomades (colour stable); soluble essence ginger (like Hays'); corn solvent, clear (not acid); liquor copaiba comp. c. huchu et matico (mixes clear with water); gonorrhœa paste, excellent (Dr. Ricord's); taraxacum and podophyllin (resembles Pepper's); with many others; send stamp for list, stating wants. The toilet preparations are identical with those prepared by a wholesale West-end firm; others equally good; all inexpensive to make; 5s. each (five for 1L.). Readers are cautioned against cheap and worthless imitations. I was first to advertise formulae in this journal. "Analyst," care of Mr. Warne, 6 Rochester Square, N.W. (Note change of address.)

To all whom it may concern.—About to leave the neighbourhood; I offer the whole of my formulae as advertised during last twelve months, including my famous lavender-water, at the nominal terms of seven stamps for single recipes, above that number six stamps each, on prompt application. "Devoniensis," Broadhempston, Totnes.

"Glycerine Cream," a most elegant preparation for chapped hands and roughness of the skin. It has a soothing emollient action; one dressing will prove its worth. Whilst possessing all the virtues of glycerine, it may be used without inconvenience, it rapidly dries in, and gloves may be worn immediately after its use. A lady purchaser writes:—"Your Glycerine Cream is the nicest and most useful preparation I ever used. My hands were in a fearful state, but three applications of the Cream completely cured them. It surprises me you have not a London agent." Recipe 1s. 1d., or with others in my list, 3 for 2s. 6d. free. T. Brooks, Chemist, Louth, Lincs.

"Entirely New Remedy for Toothache," gives instant ease, not injurious to other teeth; "Nigerine," jet-black, waterproof patent blacking, cheaper, sweeter, and better than Nubian; "Digestive Relish," best and cheapest sauce in creation, from 3s. gallon; "Lupline Bitters," equal to American in every respect, one-third price; "Lime and Glycerine," elegant, creamy, snow-white, quite inseparable, pronounced best in market; "Foaming Dentifrice," resembles Floriline, costs one-eighth; "Rheumatic Embrocation," most excellent, cannot be surpassed in cheapness and efficacy; "Blood-purifying Powder" (London surgeon's recipe), popular spring and autumn remedy; "Anti-spasmodic Elixir," simple, reliable, always efficacious; "Camomile and Quinine Pills" for indigestion, &c., frequently preferred to Norton's; "Effervescent Depurative Saline," *facsimile* of Eno's, costs 10d. lb., entirely soluble, keeps well; "Cryptosomiasis," certain speedy cure for gleet, &c.; "Mist. Gonorrhœa" (capiivi), nauseous taste masked, unfailing remedy; "Hair-restorer" (*sine* sulphur), clear, sweet, economical, confidently recommended; "Liver Pills" (vegetable), gentle action, always effectual; "Lavender Water," superb fragrance, lasting, equals Sainsbury's; "Occasional Pills" (for ladies), most reliable, preferred to Widow Well's; "Essence for Deafness," simple and effectual; "Podophyllin and Taraxacum," pleasant taste, vastly superior to similar preparations; "Pile Powders and Ointment," cure and prevent haemorrhoids; "Quinine and Iron Tonic," bright and unchangeable, resembles Pepper's; "Worm Syrup," entirely vegetable, pleasant and rapid action; "Cattle Oil's" (like Ludington's), guaranteed equal to any sold; "Glycerine Cough Linctus," truly invaluable, universally liked; "Ringworm Specific," certain rapid cure; "Tic Pills," unequalled in efficacy, many testimonials; "Chlorodyne," inseparable, perfectly soluble, quite equals Brown's; "Marking Ink," indelible, no waste, creditable to seller; "Fumigating Ozonic Ribbon," cheapest, sweetest, perfect disinfectant. All above guaranteed genuine formulae, are profitable, and may be honestly recommended with confidence. Price 1s. 1d. each, 3 for 2s. 6d., 2s for 1L. post free, with full particulars for making, &c., by T. Brooks, Chemist, Louth, Lincs. N.B.—Detailed list sent post free. Recipes non-approved can be returned. I wish to give purchasers entire satisfaction.

Shop Fittings.

Two 2-gal carboys, Thirlby, Chemist, Leicester. Maw's dispensing scales, fig. 7; nickel plated. A Remington still copper, quite new; 10 gallons. Arthur Deck, Cambridge. Show carboys, Maw's fig. 1, one 3 gal., one 2 gal., two 1½ gal., nine 1 gal.; offers wanted. Griffith, Chemist, Chichester.

5 gr. pill-n-acheine; dispensing scales, Maw's fig. 7; offers, or exchange "Desideratum" mixer. Bowes, Whitby.

Tooth brush case, as Maw's A 4. with high mirrored back, as 10 A, 30s. Dale, 345 Park Road, Liverpool.

Chemists' shop-fittings, shop bottles, specie-jars, ointment and extract jars, show-cases—for sale, a bargain. 15/24.

6 doz. cut-glass drawer-knobs, gilded backs, and Y. G. Co.'s 3½-gal. pear-shape carboy, stoppered, for 18s. Guthrie, 6 Mulberry Place, Edinburgh.

Two 1-gal., 1 4-gal. window-carboys; flat counter-case, 40 by 22, plate-glass top and sides, two trays. Apply, H. H. Taylor, Middlesbrough.

Iron counter-scale, weights 28 lbs. down, 24s.; blocks for packing, 4-oz., 1-oz., 10s. nearly new; half price, both 16s. 6d. Waites, Chemist, Rotherham.

Bent top and double upright plate-glass counter show-case, Treble's catalogue 111, length 9 feet, 2 high, 2 wide, French-polished mahogany, nearly new; what offers? E. Pettinger, High Street, Hamps'd, N.W.

Show-bottles, specie-jars, shop jars, all sizes and colours; outside lamps, shop and store bottles, 4 lb. blue-jars, good labels; glazed cases, mahogany counter-case, 8 feet 6 inches, bent plate, silvered doors, 12 trays, 5l. 21 Broadway, Deptford.

Must be sold at once to clear.—An extremely han'some window-inclosure, looking-glass one side and Spanish mahogany the other, sa-hes run on rollers; entirely complete; nearly new. Deacon, Beckenham.

Set of shop-stands, narrow and wide mouthed; flat counter glass case; upright glass case, with shelves; quantity of stock bottles, with japanned tin caps. For price, &c., "Chemists," 4 Spring Gardens, Buxton.

Two sets of drawers, (1) 9 ft. long, 4 ft. high, 56 drawers, 5 lockers, 5½; (2) 5 ft. long, 4 ft. high, 27 drawers, 2 lockers, 3l. 10s., mahogany fronts, labels new; 8 ft. counter, fine mahogany top, front grained mahogany, fitted with four new drawers and till, 4l., nearly new; window inclosure, 8 ft. long, 3 ft. 10 in. high, 27 in. wide, ornamental glass, stained mahogany and varnished, 2l. 15s., nearly new, all in good condition, as owner is taking larger shop (fitted); an offer would be entertained to clear out the lot; suit a beginner. Birkbeck, Chemist, Lincoln.

A mahogany tooth-brush case, 16 in. long, 15 in. wide to back of shelf, 12 in. high, fitted inside with three glass shelves and red velvet tray, mirror, plate-glass, fall open as the back, 12. 10s. 6d.; a 6-ft. Spanish mahogany dispensing-screen, 2 ft. high, three plate-glass doors, shifting shelves, inside case, plate-glass tables, with gold writing and carved wood on top, same as fig. A 55, 6l. 10s.; one 5-ft. circular-fronted mahogany plate-glass case, with sloping shelves and table in the centre, as fig. A 18, 5l.; 6 ft. long, 5l. 15s.; 7 ft. long, 6l. 10s.; a 12-ft. run mahogany fronted drawers with 60 drawers, gold labels and white knobs to each, 2s. 3d. per drawer; several second-hand cupboards and quantity mahogany-faced shelves, all very cheap. J. Bygrave, 12 Curzon Street, Wenlock Street, New North Road, Hoxton, London, N.

Two 33 in. specie-jars (Royal Arms), 1 24 in., 2 21 in., 1 19 in., 1 18 in., 1 16 in. specie-jars, single scroll gold label; 30 show-carboys, 6 upright show-bottles, 60 4 lb., 60 3 lb., 48 2 lb., 70 1 lb., 250 4 and 8 oz. blue and olive ointment and extract jars; 50 1 gall. upright black-glass stock-bottles, 480 4 oz., 8 oz., 20 oz., 30 oz., 40 oz., 60 oz. wide and narrow mouthed shop-bottles, show-jars (figs. A, D, O), 150 gross glass feeding bottle tubes, 60 gross wood unions for feeding bottles, 1 gross elastic gum catheters and bongies, 3 doz. green silk eye shades, 4 gross glass syringes, 3,000 large and small circular filtering papers, 12 doz. complete funnels and mortars, 3 gross graduated glass measures, 5 2 oz. 5 grain pill machines, 3 tincture presses, 3 doz. marble slabs and pill tiles. Lloyd Rayner 10A and 46 De Beauvoir Crescent, Kingsland, London, N.

safe, 30-in. high, fire and thief proof, two drawers, good locks, two sets of keys; will sell cheap. Weaver, Chemist, Dudley Road, Wolverhampton.

Superior modern second-hand fittings, own manufacture, wall case, see Maw's A 88, except lower sashless sheet glass, middle sloping, wood divisions, no trays or stays, 12 ft. long, 9 ft. 11 high, top case 8½ in. deep, lower 15½ in., 25½; 122 drug drawers, amber-glass knobs, cover, board deal lockers, 50 in. high, length 14 ft. and 3 ft. 4 in., 14l. 10s.; case, as Maw's A 4, 42 in. long, 25 in. wide, 23 in. high, no carving, 6l.; Spanish mahogany dispensing screen, plate-glass sashes, tablets, pilasters, trusses, 107 in. long, 23½ in. high, 7l. 10s.; mahogany wall-case, three bent-plate flaps, solid ends, 73½ long, 21 in. deep, 19½ in. high, 6l. 10s.; 26 dozen 4 second-hand rounds, labels and contents, 11s. 15s.; tin 3-gallon carboys, 10s.; nest 5½ mahogany-fronted drug drawers, 7 ft. 1 in. long; 1 ft. 10½ in. high, 2l. 11s.; 70 rounds and pots, no labels, 11. 18s. Hawke & Son, Wild Court, Great Wild Street, London.

18 in. long, 2 ft. long, 2 ft. 2 in. long, 2 ft. 4 in. long, 2 ft. 6 in. long, 4 ft. long, 4 ft. 8 in. long, 6 ft. long, bent plate glass counter cases as A 12, A 3, A 16, A 18, Maw's; plate-glass counter and tooth-brush cases as A 1, A 4, A 6, A 8, A 9, A 10; plate-glass showcases as A 5, A 41, A 42, A 43, 2 ft. long, 2 ft. 6 in. long, 3 ft. long, upright counter cases with and without desks, A 31, A 32; stands as A 37, A 38, A 40; soda-water stands, A 57, 3 ft. long, 4 ft. long, 4 ft. 6 in. long, 5 ft. long, 6 ft. long, 7 ft. long, handsome dispensing-case screens, A 54, A 55, A 56; 5 ft. long, 6 ft. long, 7 ft. long, handsome dispensing screens, mirror centre, case at each end, various designs; 15 mahogany-top counters, A 60, A 61, A 62, all lengths; plate-glass case fronted counter, A 63; shop-fittings complete all sizes, A 82, A 83, A 84, A 85; shop-fittings complete, A 86, A 87, all lengths; shop-fittings complete, 18 ft. 3 in., 13 ft. 6 in., 20 ft. long, 12 ft. 8 in.; shop-chairs, B 3, B 6; shop-lamps, fig. 1, 5; 12 ft. 6 in. long, ebonised side-counter case with glass doors to open shelf enclosed, with plate-glass sloping front case on top, mirror back, 4 ft. 9 in. high, Lloyd Rayner, 10l. and 46 De Beauvoir Crescent, Kingsland, London, N.

Miscellaneous.

Fine-tone violin, bow, case, and Farmer's Violin School, 30s. Webb, Chemist, Calne.

Sale or exchange, magic lantern slides; cheap and good. Apply Piggott, Huddersfield.

Six-inch hive in comb, formed in glass vessel by bees. 15s/9.

Complete double bézique, in handsome box, cost 16s. 15s/9.

Surplus stock of sponges, all sizes, very cheap; write for samples. Day & Co., Herne Hill.

Timets, buchu, pyrethri, digitalis, sassafras, cascara, liq. ferri dialysatis, dyes 6d. (Indian), Clawsnight, 15s/9.

White Dutch metal, three bundles for sale; whatever offers in cash for whole or part. Chippin, Walton, Ipswich.

Patents (German and Maw's), floats, Hooper's infants' foods, cod-liver oil, essential oils, Sharpe's perfumes, *Pharmaceutical Journals* from commencement; list sent. Fowler, Chemist, Portsea.

500-gallon oak vat, good as new, 2d. per gallon, large tap included; pill-machine for 24, price 12s.; Jenner's liver mixture, 2s. 6d., three for 3s.; iron mortar, 10-inch, 3s. 6d. Floyd, Bury St. Edmunds.

A few cwt. of paint, ready for use, best quality, assorted colours, in 1-lb., 2-lb., 4-lb., and 7-lb. new patent self-opening cans; the colours are black, white, light, dark, and medium red oxide for ironwork; light, dark, and medium drab; yellow; brown; light, dark, medium, and olive green; lead colour, two shades; sage green, and French grey. Price 2s. per cwt.; carriage paid on 1-cwt. lots and upwards. Almgill, Yeadon, Leeds.

Quantity Sandell's hair-restorer, Curley's comoline crown depilatory, Bagshaw's foot-rot lotion (clean and saleable), four Dale's carbon cells (wire and incandescent lamp), set unused boxing-gloves, nickelated air-pistol (perfectly accurate), darts, bullets, and gong target, old fine German concertina, zoetrope, magic lantern and slides; cheap for cash, or exchange microscope, conjuring-apparatus, jewellery, hooks, anything useful. "Chemicus," Post Office, Shaftesbury.

Oil-cistern, with tap, painted, strong tinned iron, to contain about 150 gallons, height 5 feet, diameter 2 feet 6 inches, price 4l. 4s., original price 7l. 10s.; oil-cistern, as above, to contain about 100 gallons, height 5 feet, diameter 2½ inches, price 3l. 15s., original price 6l. 10s. Apply W. J. Grout, Hereford.

WANTED.

Homeopathic show-case. Padwick, Red Hill. 2 or 3 Warner's patent pill vases, empty. Arthur Deck, Cambridge.

Empty castor-oil tins, in good condition; cheap for cash. Kemp & Son, Newcastle.

Ten 80-oz. lozenge-hotties, York Glass Company's, fig. 161. Delf, Dewsby.

Handsome dispensing-screen, mahogany; send sketch. 145/2.

Chemist and Druggist, 1883, with index. E. C. J. Davies, England Lanc. N.W.

"Year-book of Pharmacy" for '81, '82, '83. 15s/24. *Chemist and Druggist*, posted week old. Jefferson, 52 Robertson Street, Hastings.

Counter-case, as A 18, 4 to 4½ feet; state price. 15s/34.

Homeopathic case and contents. Roberts, Chemist, Kidderminster.

A curved plate-glass mirror, about 3 ft. by 3½ ft.

Billing, 11, Chemist, Cheetham, Manchester. Latest edition Flückiger's "Pharmacographia," state price to H. Wilson, Messrs. George & Welch, Worcester.

Fowne's "Chemistry," Henfrey's "Botany," Ganot's "Natural Philosophy," "Alpha," 68 Broad Street, Worcester.

A soda-water fountain for counter, refrigerator, and cylinder. State price, &c., to "Chemist," 4 Spring Gardens, Buxton.

Marking-ink, genuine, for indiarubber stamps; sample and price, or would buy receipt Clarke, 78 Faulkner Street, Manchester.

Index of *Chemist and Druggist* for the years 1875, 1876, and 1878. Send price to R. Kemp, Alford, Lincolnshire.

To purchase or hire latest edition of Cooley's "Encyclopaedia of Practical Receipts."

Moore, Chemist, Brierly Hill, Staffordshire. Bentley's "Manual of Botany," Will's "Pharmacy," latest editions; state price. Chandler, Newport Pagnell.

Operating-chair, Archers', must be cheap and in good condition. Particulars and lowest cash price, and probable cost of carriage, to Potts, Dentist, Tatham Street, Sude land.

The last five years' numbers of *The Chemist and Druggist*, bound or unbound; send particulars and price to S. & G., 109 South Street, St. Andrew's, N.B.

Scoville Jackson's "Materia Medica" (Angus McDonald's). Griffith's "Notes on Pharmacopeial Preparations," second hand. Reid, 91 Broughton Street, Edinburgh.

Pindar's hand rotary pill-machine and piping-press, Pfleiderer's small kneading-machine, Warner's pill-vases. Canning, Houghton-le-Spring.

"Enterprise" tincture-press, Breech's "Botany," still, 6 by 20 feet; W. M. bottles, 6 and 20 oz.; N. M. shop-rounds, stoppered; paint-mill, "Enterprise" mill; cheap; for sundries, &c. Wilks, Burnley.

Addresses and Information Wanted. Bainbridge, Chemist, late of Millom, Cumb. land, 142/38.

J. Roberts, registered dentist, late of Springfield Terrace, Willesden Green. 15/15.

Address of John Baker, over 6 feet high, bald, walks lame, heavy moustache and beard. E. Collings, Littlehampton.

R. F. Heney, proprietor of D'Or's light and power battery, late of Gipsy Hill and Norwood. 15/15.

Practical formula for making the cheap article known as "Granular Effervescent Citrate of Magnesia" on a large scale, as used by the wholesale drug-houses; the cost must not exceed about 6d. per lb., including latour; also full details required of the necessary plant, dimensions of same, &c., and information about granulating it, &c.; it is required to make about 2 to 5 tons a month, must retain its white colour and effervescence well; information wanted only from a practical man, who is engaged in the making of it; in giving the formula full particulars of the substances used must be given, stating also alternative ones that can be used to improve the quality, and also ones to decrease the cost and quality; full details must also be given of the mode of operating, and all technical details; for the above information we are prepared to give from 2l. to 5l., according to the value of the information and details given. 13/13. Office of THE CHEMIST AND DRUGGIST.

GEORGE PATTISON'S LIST OF BATH GLOVES.

Turco Sponge Gloves, No. 1..	..	..	(best white. Retail 6d.)	..	..	..	..	..	..	4/0 per dozen pairs
Turco Sponge Gloves, No. 2..	..	..	(best white, large, with red binding)	..	..	..	..	..	..	4/8 "
Turco Sponge Gloves, No. 3 C quality	..	..	(thin white)	..	..	..	..	..	..	3/0 "
Turco Sponge Gloves, No. 4 C quality	..	..	(thin white, large, with red binding)	..	..	..	..	..	..	4/0 "
Baden Sponge Gloves, No. 1 ..	..	..	or Turkish (best white, extra stout quality, large)	..	..	..	..	..	..	5/0 "
Baden Sponge Gloves, No. 2 ..	..	..	or Turkish (best white, extra stout quality, medium and small)	..	..	..	..	..	..	4/6 "
Oriental Sponge Gloves ..	..	..	(very superior stout white, with red stripes)	..	..	..	..	..	..	6/8 "
Cleopatra Sponge Gloves ..	..	..	(fine quality, white with red stripes)	..	..	..	..	..	..	5/0 "
German Sponge Gloves..	..	..	(cream or unbleached white, soft and spongy)	..	..	..	..	..	..	5/0 "
Empress Sponge Gloves ..	..	..	(crisp white, with fancy stripes)	..	..	..	..	..	..	5/0 "
Monarch Sponge Gloves ..	..	..	(drab, with fancy border, very absorbent)	..	..	..	..	..	..	6/0 "
Baden Flesh Gloves, or Calefacio No. 1	..	..	(best soft brown—friction)	..	..	..	..	..	..	6/0 "
Baden Flesh Gloves, or Calefacio No. 2	..	..	(hard brown—friction)	..	..	..	..	..	..	6/0 "
Baden Flesh Gloves, C quality ..	..	..	(soft brown—friction)	..	..	..	..	..	..	5/4 "
Paragon Bath Gloves ..	..	..	(soft brown, with red and white stripes)	..	..	..	..	..	..	6/3 "
Union Bath Gloves, No. 1 ..	..	..	(one side stout white, and the other side best soft brown)	..	..	..	..	..	..	7/0 "
Union Bath Gloves, No. 2 ..	..	..	(one side white honeycomb, and the other side hard brown)	..	..	..	..	..	..	7/0 "
Brighton Bath Gloves ..	..	..	(white honeycomb)	..	..	..	..	..	..	5/0 "
Roman Bath Gloves ..	..	..	(cream or unbleached white, stout elastic honeycomb)	..	..	..	..	..	..	6/0 "
Ottoman Bath Gloves ..	..	..	(fancy brown and white—friction)	..	..	..	..	..	..	6/8 "
Criterion Bath Gloves ..	..	..	(fancy brown and white)	..	..	..	..	..	..	6/8 "
Albany Bath Gloves ..	..	..	(fancy white linen)	..	..	..	..	..	..	6/3 "
Princess Washing Gloves ..	..	..	(fancy pink and white honeycomb)	..	..	..	..	..	..	4/0 "
Princess Washing Gloves ..	..	..	(fancy pink and white honeycomb, large)	..	..	..	..	..	..	5/0 "

ORIGINAL MANUFACTURER:

GEORGE PATTISON, 139 ST. JOHN STREET ROAD, LONDON, E.C.
SOLE PROPRIETOR OF THE "LUNG PROTECTOR" (REGISTERED).

SUPPLIED BY ALL WHOLESALE HOUSES, SUBJECT TO THEIR USUAL TERMS.

THE ORIGINAL

ARNICATED

WHITE FELT

CORN AND BUNION PLASTERS.

INVENTED AND ESTABLISHED BY

HENRY YOUNG,
A.D. 1846,

AND FAVOURABLY KNOWN ALL OVER THE GLOBE.

PRICES—

Arnicated White Felt Corn Plasters.

Thin, 12 in box (round 6d. boxes)	...	2/4 per doz. boxes.
Thick, 12 in box (original 1s. fancy boxes)	3/4	,"
Thin, 1 gross in box	...	1/10 per gross.
Thick, 1 gross in glass-top box	3/0	,"

Arnicated White Felt Bunion Plasters.

Small Thin, 6 in box (round 6d. boxes)	...	2/4 per doz. boxes.
Thick, 6 in box (original 1s. fancy boxes)	3/8	,"
Large Thin, ½ gross in box	...	4/6 per gross.
Thick, ½ gross in glass-top box	6/0	,"

SUBJECT TO THE DISCOUNTS ALLOWED BY WHOLESALE HOUSES.

N.B.—Please see that YOUNG'S Goods are supplied, as there are many worthless imitations.

Manufactory, 72 Clerkenwell Road, London, E.C. (late of CARTHUSIAN STREET).

SPECIAL NOTICE & CAUTION.

BRAND & CO.

The Original Manufacturers of Essence of Beef (green label under wrapper), and other Specialities for Invalids, have

NOT REMOVED

From their SOLE ADDRESS, No. 11
LITTLE STANHOPE STREET, MAY-
FAIR, W, and caution the trade to

BEWARE of IMITATIONS.



E. LAZENBY & SON (EDWARDS STREET, PORTMAN SQUARE,) Sole Proprietors of the Celebrated Receipts and Manufacturers of the Pickles, Sauces and Condiments so long and favourably distinguished by their name, beg to remind the public that their labels are affixed to the choicest description of goods only, that every article prepared by them is guaranteed as entirely unadulterated and may be obtained of Grocers, Italian Warehousemen and others.

HARVEY'S SAUCE.—CAUTION.—The admirers of this Celebrated Sauce are particularly requested to observe that each bottle bears the well-known label signed "ELIZABETH LAZENBY"; this label is protected by perpetual injunction in Chancery of the 9th July 1858 and without it none can be genuine.

18 TRINITY STREET, LONDON. S.E.

Elizabeth Lazenby

"RAMORNE," LIEBIG'S EXTRACT OF MEAT.

REDUCED PRICES!!!

7-lb. Tins	per lb.	5/11	each	41/5
1-lb. Jars	"	6/2	per doz.	74/0
½-lb. Jars	"	6/4	"	38/0
4-oz. Jars	"	6/7	"	19/9
2-oz. Jars	"	7/0	"	10/6
1-oz. Jars	"	7/8	"	5/9

Write for Detailed Price List to the Australian Meat Co., 9 & 11 Fenchurch Avenue, E.C.

10 lbs. Carriage Free.

KREOCHYLE BARFF AND LIQUID MEAT.

WIRE. SPECIALTY FOR INVALIDS.

To be obtained of Messrs. BARCLAY & SON, Farringdon Street, Messrs. ROUSE & CO., Wigmore Street, Messrs. BURGOYNE, BURBIDGE & CO., Coleman Street, Messrs. NEWBERRY & SON, King Edward Street, of all principal Chemists, and of "THE KREOCHYLE COMPANY," BIRKBECK ROAD, LEYTONSTONE, E.

Prices—Retail, 5s. per pint; 2s. 9d. per half pint; 1s. 6d. per quarter pint.

 **SEVEN INJUNCTIONS** have been granted during the past few months.

 **CAUTION! "YORKSHIRE RELISH."**

NOTICE IS HEREBY GIVEN that in several actions instituted by Messrs. GOODALL, BACKHOUSE & CO. of LEEDS, Injunctions have been recently granted by Judges of the Chancery Division of the High Court of Judicature, restraining several persons from using several Counterfeits of Messrs. GOODALL, BACKHOUSE & CO. Labels, and in particular against the use of the words "YORKSHIRE RELISH." The sole and exclusive right the use of which words having been finally established by the above Firm, they will take immediate proceeding against parties manufacturing or offering for sale Sauce under the above title, not being of the manufacture of Messrs. GOODALL, BACKHOUSE & CO.

Information may be given to the undersigned,

J. SEYMOUR SALAMAN,

12 KING STREET, CHEAPSIDE, LONDON,

Solicitor to the Trade Mark Protection Society.

THE AYLESBURY DAIRY COMPANY (LIMITED).

KOUMISS—"STILL" AND "SPARKLING."

Bronze Medal, London International Exhibition, 1873.

Bronze Medal, Exposition et Congrès d'Hygiène et de Sauvetage à Bruxelles, 1876.

Award of Merit, International Medical and Sanitary Exhibition, 1881.

Silver Medal, International and Colonial Food and Produce Exhibition, 1881.

Bronze Medals, National Health Society, 1883.

KOUMISS.

An agreeable, highly digestible form of nourishment, rapidly and easily assimilated by the weakest stomachs; highly nutritious as a sole diet when other foods cannot be digested. Extraordinary cases are on record attesting the valuable properties of Koumiss in numerous cases of General Debility, Poverty of Blood, Consumption (latent or fully developed), Irritability of the Stomach, vomiting of pregnancy and generally in all cases of Weakness and Delicacy of Digestion.

KOUMISS.

As proof of the very great success that has attended the use of Koumiss prepared by the Aylesbury Dairy Company, it may be mentioned that the Sales were 3,795 bottles for the fifth week 1884, against 1,090 bottles for the fifth week 1883.

ARTIFICIAL HUMAN MILK.

Prepared at the suggestion of an eminent Physician, who, in writing to the BRITISH MEDICAL JOURNAL, May 21, 1881, says:—"I should like to direct the attention of practitioners to the ARTIFICIAL HUMAN MILK now prepared by the AYLESBURY DAIRY COMPANY, at a cost little over that of the best Nursery Milk."

"The statistics of mortality show that a large number of children die annually from diseases which, although variously designated, may readily be traced to one source—viz., defective nutrition; and it may be fairly assumed that the infant death-rates, though high, represent only a small proportion of the sickness and debility that could be referred to the same cause. 'How to feed an infant deprived of its mother's milk is, indeed, one of the most important sanitary questions of the present day, for upon its proper solution will depend the health, strength, and vigour of the rising generation.'—*Social Science Review*.

"Au milieu des progrès de l'hygiène moderne, ceux qui font l'hygiène de la première enfance doivent être placés au premier rang. Bien dirigée, elle rend les enfants forts et vigoureux; mal conduite, elle amène leur déperissement et détermine souvent leur mort."—*L'Union Médicale*, 17th Août, 1882

This Preparation is meeting with a daily increasing demand.

SPECIAL MILK FOOD FOR INFANTS.

This preparation of Milk was first made in order to meet the requirements of a special case then under treatment by a well-known Physician in one of the great London Hospitals. Since then it has been supplied in several cases where exceptionally delicate infants could not take any other food.

The Company is already in possession of the most gratifying Testimonials as to the valuable qualities of this food.

PEPTONISED MILK

Is carefully prepared by the AYLESBURY DAIRY COMPANY.

WHEY.

Prepared without acid, and free from *fat* and *casein*; and therefore not objectionable to the most delicate digestion. Whey so prepared contains nearly all the salts existing in whole milk. The Phosphates are decreased, but the Chlorides are greatly increased.

SPARKLING BLAND.

A Delicious Non-Alcoholic Drink prepared by the Fermentation of Milk.

SPECIALLY PREPARED MILK FOR USE ON SHIPBOARD, ETC.,

OR FOR FAMILIES LEAVING TOWN FOR A SHORT TIME WHO DO NOT WISH TO CHANGE THEIR MILK SUPPLY.

The AYLESBURY DAIRY COMPANY (Limited) has perfected a process by which ordinary Milk can be preserved, in bottles, for several weeks. Highly satisfactory reports have been received, in one instance the milk being certified as perfectly sweet at the end of three months.

"ANNAPOLIS COUNTY, NOVA SCOTIA, September 5th, 1883.—Mrs. _____ begs to inform the Secretary of the AYLESBURY DAIRY COMPANY that the milk which was put up for her by that Company, and left London on July 29th for New York, arrived there perfectly sweet and wholesome, and appeared to agree perfectly with the baby."

This Milk can be sent to any part of the United Kingdom in cases of One Dozen and upwards.

CONDENSED MARES' MILK.

Prepared by the Carrick's Russian Condensed Mares' Milk Company, at Orenbourg, Russia.

Prices and full particulars as to the above Preparations, also of the Ordinary Milk Service, &c., &c., may be obtained on application to the SECRETARY,

THE AYLESBURY DAIRY CO., LTD.,

31 ST. PETERSBURGH PLACE, BAYSWATER, LONDON, W.

IMPORTANT COMMUNICATION.

INTERNATIONAL FISHERIES EXHIBITION,

South Kensington,

London, 26th Oct., 1883.

SIR,—I have the honour of informing you that the Special Commissioners appointed by Her Majesty's Government to receive the Reports of the International Juries have awarded your exhibit, "Filtre Rapide," a GOLD MEDAL.

I have the honour to be, Sir,

Your most obedient servant,

E. W. H. HOLDSWORTH,

Special Commissioner for Juries.

The Sanitary Institute of Great Britain have Awarded the Only and Special Medal of Merit and Four Starred Certificates of Merit to Maignen's PATENT FILTRE RAPIDE.

The National Health Society have also Awarded the Silver and Only Medal ever given by the Society to Filters.

HIGHEST AWARDS AT ALL EXHIBITIONS.

MAIGNEN'S PATENT FILTRE RAPIDE possesses the following invaluable qualities:—

- 1st. It can be taken entirely to pieces and thoroughly cleansed.
- 2nd. The Filtering Medium can be thrown away when exhausted, and replaced by fresh in a few minutes at a trifling cost.
- 3rd. It removes all organic matter, lead, copper, and poisonous gases.

"A better filter could not be desired."—THE LANCET.

"It is worth the attention of those who require large quantities of pure water."—THE TIMES.

"We found a strongly ferruginous water to be tasteless after passing through it."—THE MEDICAL TIMES AND GAZETTE.

"The simplicity of this filter enables it to be readily cleansed and repaired, or renewed, in fact."

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"Maignen's Patent Filtre Rapide purifies, and at the same time aerates, the water. We have seen the exhibitor quaff from a glass of purified sewage which had simply passed through the patent invention."—KNOWLEDGE.

PRICES from 15s.

Ask for Pamphlet "Water—Preventable Disease and Filtration," from

P. A. MAIGNEN,
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22 & 23 GREAT TOWER ST., LONDON, E.C.

SEVEN PRIZE MEDALS AWARDED.

GOODALL'S HOUSEHOLD SPECIALITIES. YORKSHIRE RELISH.

THE MOST DELICIOUS SAUCE IN THE WORLD.

This cheap and excellent Sauce makes the plainest viands palatable, and the daintiest dishes more delicious. To Chops and Steaks, Fish, &c., it is incomparable. Sold by Grocers, Oilmen, Chemists, &c., in Bottles, 6d., 1s., and 2s. each.

CAUTION.—On each Yorkshire Relish Label is a Willow Pattern Plate and name, GOODALL, BACKHOUSE & CO. No other is genuine.

Goodall's Baking Powder

THE BEST IN THE WORLD.

Makes delicious Puddings without Eggs, Pastry without Butter, and beautiful light Bread without Yeast. In 1d. Packets; 6d., 1s., 2s., and 5s. Tins.

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The best, cheapest, and most agreeable tonic yet introduced. The best remedy known for Indigestion, Loss of Appetite, General Debility, &c. Restores delicate individuals to health and vigour. In Bottles, 1s. 1½d. and 2s. 3d. each.

Goodall's Custard Powder

For making delicious Custards without Eggs, in less time and at half the price. Unequalled for the purposes intended; will give the utmost satisfaction if the instructions given are implicitly followed. Sold in Boxes 6d. and 1s. each.

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Makes Three Gallons of the Best Ginger Beer in the World for 3d. Is a delicious and invigorating beverage, possessing valuable medicinal properties. It is cooling in its nature, and a most wholesome beverage for both winter and summer. Sold in Packets, 3d. and 6d. each.

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Is acknowledged by all to be the most convenient and economical preparation ever introduced, as, by its use, a most Rich and Delicious Blanc manger may be produced in a few minutes at a trifling cost, and may be of various flavours, i.e., Raspberry, Strawberry, Lemon, Almond, &c. Vanilla. Sold in Packets, 6d. and 1s. each.

Goodall's Egg Powder

Acknowledged to be the only real substitute for eggs yet discovered. Action on Cakes, Puddings, &c., &c., resembles that of the egg in every particular, enriching them in colour and flavour, rendering them more various and nutritious. One penny packet will go as far as four eggs; one sixpenny tin as far as twenty-eight. In 1d. Packets; 6d. and 1s. Tins. SOLE MANUFACTURERS—
GOODALL, BACKHOUSE & CO., White Horse Street, Lee.
A Monthly Price List of Druggists' Sundries, Patent Medicines, &c., can be had post free on application.

Dr. Ridge's Food.



Dr. Ridge's Food.



DR. RIDGE'S

PATENT (COOKED)

FOOD



Dr. Ridge's Food.

FOR

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INFANTS AND INVALIDS.

DR. RIDGE'S FOOD has maintained its supremacy notwithstanding the many imitations in the market, and still enjoys a larger and readier sale than any other Food, the demand daily increasing. Superior quality, thoroughly cooked, and supplied in a very compressed form.

IN TINS ...	RETAIL PRICE	1s. 0d.	WHOLESALE	9s. 0d. per doz., nett cash.
		2s. 6d.	"	22s. 0d. "
		5s. 6d.	"	48s. 0d. "
		10s. 6d.	"	96s. 0d. "

The above Prices apply also to "DR. RIDGE'S PREPARED OATMEAL" and "DIGESTIVE BISCUITS."

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The above quotations are subject to a discount of 5% on £50 order or upwards.
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REMITTANCES WITH ORDER IN EVERY CASE.**

Cheques and Post Office Orders to be made payable to P. J. RUMNEY.

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Postal Address—

Royal Food Mills, London, N.

ROYAL FOOD MILLS,

LONDON, N.,

ENGLAND.

MUSTARD.**FINCH, RICKMAN & CO.'S**
Genuine Qualities

Are made from the finest mustard seeds only. Their compounds, as manufactured for upwards of a century, are guaranteed free from all ingredients imparting spurious heat, and are therefore equally suitable for both table and medical purposes.

**6 BROKEN WHARF, UPPER THAMES STREET,
LONDON.**

**RANDALL'S BLACK CURRANT
LOZENGES.**

Net Cash. To Acct.

		l.	d.	l.	d.
Plain Black Currant, old square	..	2	8	2	8
" rough oval	..	2	6	2	8
Black Currant and Ipecacuanha	..	2	6	2	8
Black Currant and Tannin..	..	3	0	3	3
Black Currant Voice (warm astringent)	..	3	0	3	3
Black Currant Cough Lozenges *	..	3	8	3	10

(* Ipecac. and Morph., strength as "B. P.")
In Bottles, 1 lb., 2 lbs., 4 lbs., and 7 lbs. For Exportation, in soldered tins, of any size. From EDWARDS, London; through any Wholesaler's House; and from the Manufacturers.

RANDALL & SON, Southampton,

Who will forward Samples by post on application.

Also, BROWN COUGH LOZENGES, 2s., 2s. 2d.; 7 lbs. stamped with name free, and MUSK LOZENGES (Special), 2s. 6d., 2s. 8d.

N.B.—Medical Lozenges of every kind,

Including those of the Pharmacopœia of the Hospital for Diseases of the Throat, London.



DRUGGISTS' WAX, } "BEE" BRAND
BOTTLING WAX, } **WAX**
LETTER WAX, } **SOLD BY ALL**
PACKING WAX. } **Wholesale Druggists**
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GEORGE WATERSTON & SONS,
LONDON AND EDINBURGH.

CHUBB'S Best SEIDLITZ POWDERS

—Full Weight—Loose, at 7s. per gross; in lift-off boxes, 7s. 6d., and in hinged boxes, 8s. 6d., per dozen.

CHUBB'S Extra Scented VIOLET POWDER

(WARRANTED PURE STARCH POWDER),

In 1d. Boxes, 6s. 6d. gross, and 2d. Boxes, 12s. 6d. gross, and in $\frac{1}{2}$ -lb. and $\frac{1}{4}$ -lb. Packets, 10d. per lb.**CHUBB'S Prepared FULLER'S EARTH**

In 1d. Boxes, 5s. gross, and 2d. Boxes, 9s. 6d. gross, and in 3d. and 6d. ROUND Boxes, 1s. 9d. and 3s. dozen.

SUBJECT TO 15 PER CENT. DISCOUNT FOR CASH.

May be obtained through all the Wholesale Houses, or direct from
CHUBB & CO., 29 OLD ST., LONDON, E.C.
SPECIAL QUOTATIONS FOR LARGE QUANTITIES.

Medicines of Approved Efficacy,

From Prescriptions of Eminent Physicians,

PREPARED BY

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(ESTABLISHED 1789,

**MEDICAL HALL,
168 PICCADILLY, LONDON.****DR. REECE'S ALKALINE ESSENCE OF GINGER AND
CAMOMILE FLOWERS,**

For Indigestion, Flatulence, Heartburn, Spasms in the Stomach, Bilious and Nervous Complaints, and General Weakness of the System.

2s. 9d. per Bottle.

THE ARTIFICIAL HARROGATE SALT,

So justly celebrated as an Alterative Aperient in cases of Cutaneous Diseases, Gout, Acute Rheumatism, Scrofulous Tumours, Inflammation, particularly of the Eyelids; Piles, Worms, Scald Heads, Foul Ulcers, Glandular Obstructions, &c.

In Bottles, 2s. and 3s. 6d. each.

THE LEVIGATED CHARCOAL OF THE ARECA NUT.

Highly recommended by Professor HENRY and the most eminent Dentists for preserving the Teeth, suspending the progress of Caries, preventing Toothache, sweetening the Breath, cleansing the Tongue, and correcting the scorbutic or spongy state of the Gums, which is a common cause of carious Teeth, pains in the Face, and offensive Breath.

In Boxes at 2s. 6d. each.

SIMPLE TINCTURE OF RHATANY,

For the Gums, to which it gives remarkable tone, strengthening and giving firmness and healthy vigour to the vessels by which the Teeth are surrounded, and imparting to them an energy which prevents their decay to which they are too often prone.

In Bottles, 2s. 6d. and 4s. 6d. each.

THE OIL OF THE WALNUT.

This article is an excellent corrective of Inflammatory Pimples or Blotches, rendering the Skin soft and healthy. The Skin affected should be gently rubbed with it every night. It is very efficacious for promoting the growth of the Hair. In such cases it should be rubbed every night or morning over the scalp, i.e., at the roots of the Hair.

In Bottles, 1s. 6d. and 3s. each.

THE COMPOUND ASARABACCA SNUFF,

For Nervous Headaches, Dimness or Weakness of Sight, Deafness from debility of the Auditory Nerves, Hay Fever, Catarrh, &c.

In Bottles, 2s. 6d. each.

THE LETTUCE LOZENGE,

Prepared according to the directions of the late Dr. DUNCAN, Professor of Medicine in Edinburgh; the simplest and most efficacious remedy for recent or Catarrhal Cough, and Irritation of the Membrane lining the Windpipe.

In Boxes, 1s. 1d. and 2s. 3d. each.

CAJEPUT OPODELODO.

For Rheumatic or deep-seated Pains, Enlarged or Stiff Joints, Indolent Tumour or Chilblains.

In Bottles, 2s. 6d. each.

They desire also to call the attention of the Trade to the

CURRIE POWDER,

as prepared by them from the recipe of Major Troup, which is so much approved and used by the Nobility: Clubs and Hotels at the West End.

In Bottles, 2s. 6d. and 4s. 6d. each.

All or any of the above may be obtained through the ordinary business channels (subject to the usual Trade discounts), from whom may also be procured Dr. REECE'S

'MEDICAL GUIDE TO HEALTH,'

The best and simplest work of the kind ever published.

Retailing at 5s. each.



LORIMER & CO.'S Half-Yearly Price Current

OF

DRUGS, CHEMICALS, PHARMACEUTICAL PREPARATIONS, BOTTLED DRUGS
AND SPECIALITIES, CONCENTRATED SOLUBLE ESSENCES, FRUIT
ESSENCES, ESSENTIAL OILS, & ALL MATERIALS REQUIRED
BY MINERAL WATER MAKERS & CONFECTIONERS.

FORWARDED FREE ON APPLICATION.

SPECIAL QUOTATIONS FROM ABOVE LIST. Terms—5 per cent. Discount for Cash Monthly, or 6 per cent. Discount on Foreign Indents accompanied by remittance. Any of our Specialities can be had with Plain Labels, or in large quantities with Purchaser's Name instead of ours.

PARRISH'S CHEMICAL FOOD.

From the original formula.

In bottles containing $\frac{1}{4}$ lb., 3/9 per doz.; $\frac{1}{2}$ lb., 5.6 per doz.; 1 lb., 9/9 per doz. In bulk, lb. 8d.; by cwt. 6*1/2*d.

Guaranteed to contain Phosphate of Iron in the Ferrous state, and the other phosphates in combination with pure Phosphoric Acid and finest English refined sugar.

CALISAYIN.

REGISTERED.

The Sulphate of the entire Crystallizable Alkaloids obtained from the three varieties of CINCHONA BARK.

100 parts consist of 75 Alkaloids (Quinine, Quinidine, Cinchonidine and Cinchonin), 9 Acid, and 16 Water.

Calisayin resembles Quinine in appearance, Solubility in Diluted Acids, Medicinal Properties, and in its mode of administration.

Calisayin is equal to Quinine as a Tonic, Febrifuge, and Anti-periodic.

The price is much less than that of Quinine. In $\frac{1}{2}$, 1, and 4 oz. bts., oz. 2/9.

FERRI ET CALISAYIN CITRAS.

(Containing 25 per cent. pure Crystallizable Citrate of Calisayin.)

In fine Scales readily soluble in water, per oz. 10d.

The above combination of Calisayin with Citrate of Iron is equal in therapeutical value and general characteristics to the Ferri Quiniae Citras, P.B.

LORIMER'S CIGARETTES.

In slide Boxes, containing 10 Cigarettes to retail at 9*1/2* each, 6*1/2* per doz.; containing 25, 1/6 each, 12*1/2* per doz.

These Cigarettes contain Cubeb, Stramonium, Cannabis Indica, and Camomiles, and are most useful in all cases of Catarrh, Asthma, Cold in the Head, Bronchitis, and diseases of the throat. They make a pleasant smoke, and are largely prescribed by Physicians. In Asthma, one before bed will give a comfortable night's rest, and are most useful in foggy and damp weather. The ingredients are of best quality down to wrappers, which are warranted pure rice paper, and being of our own manufacture, we can with confidence recommend them.

CORN CURE, LORIMER'S.

Speedy, safe, and effectual for hard or soft Corns. In Fancy Cases containing 1 doz. 1/ bottles, with Brush, &c., complete, per case, 7*1/2*.

SALINE, EFFERVESCENT (finely granulated).

A pure well-dried mixture of definite composition which in dissolving produces a sustained sparkling effervescence, and a clear, bright solution. Chemists will find this preparation advantageous and most reliable to sell as their own. Price per lb., 1/2; 14 lbs., 1/1; cwt., 1*1/2*. In 8-oz. patent stoppered saline bottles, without labels or wrappers, 8*1/2* per doz., 8*1/2* per gross; with labels and wrappers, 10*1/2* per doz., 10*1/2* per gross.



CITRATE OF IRON AND QUININE

(BRITISH PHARMACOPÆIA).

Special quotations on application.

The great success which has attended our manufacture of this preparation (amounting to about 130,000 ounces annually) has induced unscrupulous adventurers to offer, under cover of a seal and label similar to ours, an inferior preparation. We, therefore, give here a *facsimile* of our seal (in red wax) and label, and caution our friends to beware of spurious imitations of our preparation, some having been sold which contained no quinine at all.—See *Pharmaceutical Journal*, April, 1877.

EXTRACT OF MALT. Prepared in Vacuo.

In $\frac{1}{2}$ -lb. white glass bottles, with white-metal screw tops, 8*1/2* doz.; do., 1-lb. bottles, 12*1/2*.

QUININE WINE.

Prepared with Pure Quinine and the Finest Orange Wine, guaranteed to be of the full strength of the British Pharmacopœia.

Imperial Pints, 16*1/2* per doz.; Imperial Half-Pints, 8*1/2* per doz.

QUININE AND IRON TONIC.

In bottles to retail at 1*1/2* and 2*1/2* each; 7*1/2* and 14*1/2* per doz.

From our position as Manufacturers of Citrate of Iron and Quinine, &c., we are able to offer advantages in this Preparation which the Retailer cannot otherwise obtain. OUR TONIC remains permanently bright, is elegantly got up, and its sale is certain.

CITRATE OF MAGNESIA.

Having Special Plant for the manufacture of Granular Preparations we can offer these advantageously.

EXTRA QUALITY.

Per lb. in 7-lb. pottles, tins or casks, 1*1/2*; 1 cwt., 1*1/2*. Packages charged. In 1*1/2* boxwood top bottles, 4*1/2* per doz. In $\frac{1}{2}$ -lb. bottles, 5*1/2* doz.; $\frac{1}{2}$ -lb. bottles, 8*1/2* doz.; 1-lb. bottles, 13*1/2* doz., bottles included.

CITRATE OF MAGNESIA.

GOOD QUALITY.

Per lb. in 7-lb. pottles, tins or casks, 11*1/2*d.; 1 cwt., 10*1/2*d. Packages charged. In 1*1/2* boxwood top bottles, 4*1/2* per doz. In $\frac{1}{2}$ -lb. bottles, 5*1/2* doz.; $\frac{1}{2}$ -lb. bottles, 7*1/2* doz.; 1-lb. bottles, 13*1/2* doz., bottles included.

COD - LIVER OIL, PURE NORWEGIAN.

Guaranteed to remain bright at freezing point. Extracted by a Special Process from selected Livers of the Cod Fish only.

8-oz. bottles, 9*1/2*; 16-oz. bottles, 17*1/2*; 32-oz. bottles, 32*1/2*; gallon, 13*1/2*; 25-gallon orig. casks, 12*1/2* gallon.

KANGRA VALLEY Indian Tea Growers' Association, 7 NEW COVENTRY STREET, LEICESTER SQUARE, W.

PROSPECTUS.

The object of the Planters who have formed this Association is to establish a business for the direct supply of Tea from the Plantations of the Kangra Valley to the public. So great a success has attended the efforts of the promoters of the Association that it has become necessary that one of the Planters should reside in England to manage its affairs. The distinctive feature of the business of this Association is that the Tea is delivered to consumers in the original One Pound tin-lined parcels in which it is packed in the Valley, and it is guaranteed to be absolutely pure. The Association hopes that it may, without presumption, safely recommend this Tea to the public, believing that it will continue to give the greatest satisfaction.

*Wide Allen's Indian Mail, Feb. 28, 1883:—**** We can speak from actual knowledge of the excellence of the Teas of the 'Kangra Valley Indian Tea Growers' Association,' and as in advertising them we are also benefiting those who take advantage of their enterprise, we append their modest prospectus, which promises no more than they are well able to perform."*

Chemist and Druggist.—"A new agency for tea is offered to chemists and druggists by the Kangra Valley Indian Tea Growers' Association, and the fact that the well-known firm of Barclay & Sons are assisting this association in introducing their teas to the public through chemists is a guarantee that the business is of a more serious character than some other of the packet-tea agencies have proved. The Kangra tea plantations lie on the slopes of the North-West Himalayas, and this association appears to take great care in the selection of their leaves, and certainly offer a tea of fine quality. Their teas are packed in pound packets at the plantations, and in that form are offered for sale here in three different qualities."

These Teas, retailing respectively at 4/-, 3/-, and 2/6, can be purchased in any quantity, either direct from the Store, 7 New Coventry Street, or from Messrs. Barclay & Sons, 95 Farringdon Street, Agents to the Association.

Special Terms granted to all Chemists and Druggists, to whom the Teas, on account of their absolute purity, are particularly recommended.

PURE SOLUBLE COCOA.

VAN HOUTEN'S COCOA

Is the only guaranteed Pure Soluble Cocoa, better and cheaper than any other Cocoa, Cocoa Extract, or any Chocolate.

The British Medical Journal, March 27, 1869, says:—"Van Houten's Cocoa is admirable. In flavour it is perfect, and it is so pure, well prepared, and rich in alkaloid," &c., &c. See also the *Lancet*, &c.

Sold (full weight) in 1-lb., ½-lb., and ¼-lb. Tins, at 4s., 2s. 1d., and 1s. 1d. Sample Tins, sufficient for a family, free of charge, through your Grocer or Chemist, or from

THE CHIEF DEPOT, 6 & 7 COLEMAN STREET, LONDON, E.C.

FIRST CLASS MEDAL, NEW ZEALAND, 1882.

PHILLIPS & SONS' DANDELION COFFEE.

Castle Square, SWANSEA; 12 Arthur Street West, LONDON BRIDGE.

Be particular in noting London Address, as we have no connection with a Retail Firm of same name.

PHILLIPS & CO., IMPORTERS OF TEAS, COFFEES, AND MANUFACTURERS OF PURE, PLAIN, AND FANCY COCOAS AND CHOCOLATES,

8 King William Street, City, London, E.C.

Warehouse and Show Rooms in adjacent premises, 13 and 14 ABCHURCH LANE, and at 10 and 11 GRAND HOTEL BUILDINGS, CHARING CROSS.

The Agency for the Sale of PHILLIPS & CO.'S Teas and Coffees, Cocoas and Chocolates, will be found very profitable to Chemists.

CHEMISTS' TEA AGENCY.

WALKER & DALRYMPLE'S

BROKEN-LEAF TEA, 1s. 8d. per lb.

A MONEY SAVING TEA. ABSOLUTELY PURE.

The small leaf from some of the finest India and China Teas. Produces a Tea in the cup, stronger, richer, and cheaper than most whole-leaf Teas. Agents appointed, where unrepresented, throughout the United Kingdom.

WALKER & DALRYMPLE'S

INTERMEDIATE TEA, 2s. per lb.

BEST at the PRICE EVER SOLD. Great strength and a most useful Tea where there is a large consumption. Recommended to all who wish to SAVE in their Tea. Agents appointed, where unrepresented, throughout the United Kingdom.

WALKER & DALRYMPLE'S TEAS.—

AGENTS APPOINTED, where unrepresented, throughout the United Kingdom.

Prospectus and Samples Free on Application.

Warehouses, 154, 155, 159 and 160 WHITECHAPEL ROAD, and
BRADY STREET, LONDON.

P.O.O. payable at head office. Bankers, the National Provincial Bank of England.

THE WELL-KNOWN "LONDON TEAS"

ARE ONLY SUPPLIED WHOLESALE BY

THE GREAT TOWER ST. TEA CO. (LIMITED).

Siftings from Fine Tea . . .	for Retail at 1/4 per lb.
The London Whole-Leaf Tea	1/8 "
The London Broken Tea	1/8 "
The London Two-Shilling Tea	2/- "
The London Two-Shilling Indian Tea	2/- "
The London Assam Broken Tea	2/8 "

AND OTHER FINER BLENDS.

Order a small Sample Parcel. The Quality never deteriorates.

A. HORATIO JONES, Managing Director.

The Great Tower Street Tea Co. (Limited), 39 Great Tower Street, London, E.C.

LA BOURBOULE,

AN EMINENTLY RESTORATIVE MINERAL WATER.

Contains Chloride of Soda, Bicarbonates, Arsenic (20 millig. of arsenite of soda per litre).

Dose: Half a glass to three glasses per day before or during meals.

A Regenerator for Weakly Children, and for Debility in Adults; also in Anæmia, Fatty Degeneration, Affections of the Skin and Respiratory Organs, and Intermittent Fevers. Employed as a drink and in gargles for Bronchitis and Sore Throat, and as a drink and lotion in Ringworm, Chaps, and Redness of the Skin. Anglican Divine service on Sundays.

London: GALLAIS & CO., 27 Margaret Street, W. INGRAM & ROYLE, 119 Queen Victoria Street, E.C. WILLIAM BETTS & SONS, 22 Henrietta Street, Cavendish Square. Liverpool: EVANS, SONS & CO.

FIRST CLASS MEDAL, NEW ZEALAND, 1882.

PHILLIPS & SONS' DANDELION COFFEE.

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8 King William Street, City, London, E.C.

Warehouse and Show Rooms in adjacent premises, 13 and 14 ABCHURCH LANE, and at 10 and 11 GRAND HOTEL BUILDINGS, CHARING CROSS.

The Agency for the Sale of PHILLIPS & CO.'S Teas and Coffees, Cocoas and Chocolates, will be found very profitable to Chemists.

FRY'S MALTED COCOA

(PATENTED).

*A Combination of FRY'S Pure COCOA EXTRACT with
ALLEN & HANBURY'S CONCENTRATED EXTRACT OF MALT.*

J. S. FRY & SONS, BRISTOL AND LONDON.

CLARK'S COFFEE EXTRACT.

The Best and Cheapest. No Waste, no Chicory. Saving time and money.
MADE IN AN INSTANT.

CLARK'S COFFEE AND CHICORY EXTRACT.

A marvel of quality and cheapness. No waste. Made in an instant.

CLARK'S EXTRACTS are in bottles to retail at 1d., 1s., and 2s., and should be sold by all Chemists, &c., throughout the world.

Clark's Extracts are made on a new and scientific principle, whereby the aroma of fresh coffee is retained unimpaired. They will keep in any climate, warm or cold, are very portable and highly concentrated, one teaspoonful of Extract making a cup of good coffee. Clark's Extracts are acknowledged by eminent and practicable judges the best in the market.

Wholesale of the usual Houses and of the Manufacturers,

E. CLARK & CO.,

OPTIMUS COFFEE WORKS, QUEEN'S ROAD, BATTERSEA, LONDON, S.W.

CONROY'S MALT COFFEE.

Conroy's Malt Coffee has received the following Certificates amongst many others.

"Undoubtedly a nourishing and health producing article of diet." — Edward Davies, F.C.S., F.I.C., &c., Liverpool.

"Most beneficial in cases of atonic indigestion." — E. Adam, M.R.C.S., England.

"Genuine Coffee gives me indigestion. Your Malt Coffee is entirely free from this objection." — S. Whitaker, Waterfoot, near Manchester.

"Dyspeptics who could never take the ordinary coffee or date coffee can take the Malt Coffee, and with the most beneficial effects." — Dr. Lloyd, Bangor.

"I have frequently recommended your Malt Coffee in cases of weak digestion, invariably with satisfactory results." — W. Bell, Senior Surgeon to the Convalescent Institution, New Brighton.

"A most excellent combination." — A. W. Postans, F.C.S., London.

"Very palatable and marvellously easy of digestion." — Society, October 21, 1882.

"It can in many cases be readily taken when ordinary coffee disagrees." — British Medical Journal, July 29, 1882.

"Refreshing, and at the same time nutritious, spirit-infusing, yet absolutely non-irritating, palatable and wholesome to an eminent degree." — The Colonies and India, 29th Sept., 1882.

"Both pleasing to drink, and aids greatly to digestion." — The Anti-Adulteration Review, October, 1882.

"The combination ought, therefore, to improve the health of those who consume it." — Globe.

"Malt Coffee, the new temperance beverage, would seem to make the nearest approach to what is required. Pure malt is in its own way as beneficial as pure coffee, being especially strengthening and nutritious." — Morning Post.

IT IS MADE IN THE SAME WAY AS ORDINARY COFFEE.

Pamphlets containing Testimonials from Eminent Scientific, Medical, and other Gentlemen of the highest position, may be had Free for Gratuitous Distribution.

In cases of 56lbs. each, put up only in 1-lb. and 1/2-lb. tins. Each Tin is protected by an Excise Stamp under the Regulations of the new Inland Revenue Bill of August 3, 1882.

PREPARED ONLY AT THE

MALT COFFEE WORKS, 34 FLEET STREET, LIVERPOOL.

SOLE PROPRIETORS—

EVANS, SONS & CO., 56 Hanover Street, LIVERPOOL.

EVANS, LESCHER & WEBB, 60 Bartholomew Close, LONDON, E.C.

QUOTATIONS ON APPLICATION.



W. J. BUSH & CO.,

Distillers and Importers of

ESSENTIAL OILS AND FRUIT ESSENCES,

SOLUBLE ESSENCES FOR AERATED WATER AND CORDIAL MANUFACTURERS,

Extra Super Lemon, which is double the strength of ordinary commercial qualities.

W. J. B & CO. caution the Trade against the so-called soluble Essences now so frequently offered for sale, which are nothing more than mere tinctures, and, although offered at lower prices, cost five or six times as much in use, whilst imparting a strong medicated flavour.

The importance of our invention of Soluble Essences is clearly shown by the numerous imitators and copyers that have sprung up. and we must inform the TRADE that ours are the only GENUINE ORIGINAL SOLUBLE ESSENCES.

FRENCH CREAM GUM EXTRACT,

PROTECTED BY ROYAL LETTERS PATENT,

For producing a head of Creamy Richness upon all kinds of Syrups, Aerated Waters, Beers, Ales, Cider, Champagne, &c., 2s. 6d. per pound.

W. J. BUSH & CO. regret having to Caution the Trade against spurious imitations of this article, most of which being mere rubbish.

W. J. BUSH & CO.'S

ENGLISH DRAWN ESSENTIAL OILS.

OL. AMYGD. ESSENT. ANG.	OL. CUBEBÆ ANG.
„ AMYGD. „ (SINE ACID. PRUSSIC.)	„ COPAIBÆ ANG.
„ ANETHI ANG.	„ MYRISTICÆ ANG.
„ CARUI ANG.	„ MENTH. PIP. MITCHAM RECT.
„ CARYOPH. ANG.	„ SANTAL FLAV. ANG.
„ CINNAM. VER. ANG.	

OL. CUBEBÆ ANG.	OL. AMYGD. ESSENT. ANG.
„ COPAIBÆ ANG.	„ AMYGD. „ (SINE ACID. PRUSSIC.)
„ MYRISTICÆ ANG.	„ ANETHI ANG.
„ MENTH. PIP. MITCHAM RECT.	„ CARUI ANG.
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LARGO MUNIZIONE, MESSINA, SICILY,

MANUFACTURERS, ESTABLISHED ON THE VERY GROWTH PLACE, FOR THE FINEST

ESSENTIAL OILS

Of Lemon, Bergamot, Sweet and Bitter Orange. Recently Awarded at the Exhibitions of

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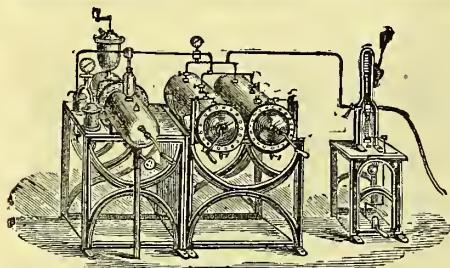
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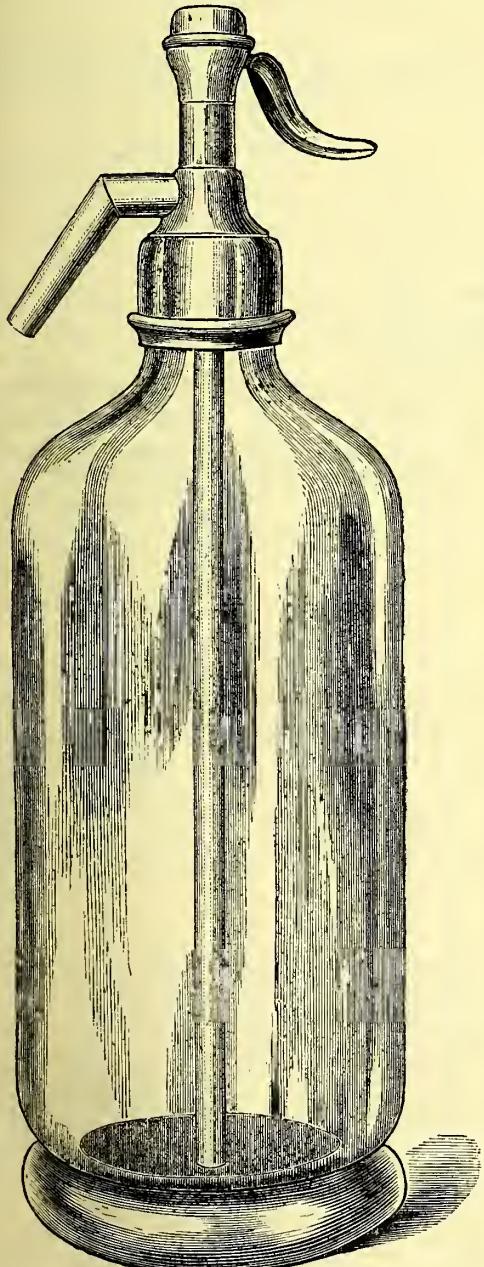
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Is the best in the Market, combining the elegance of the French with the strength and superiority of English workmanship.



Intending purchasers should apply for samples and prices, before placing their orders, to the

IDRIS MANUFACTURING CO.,
Ascham Street, London, N.W.

Tops guaranteed to be made of Best English Tin and free from Lead.

H. FAVARGER.

Block Tin Tops. { **SYPHONS**
Best Glass. { **SYPHONS**
 { **SYPHONS** } The Best and most Perfect.



SHORT LEVER.

	PRICES:
Short Lever	24s. 0d. per doz.
Per Thousand	22s. 6d. "
Nickel-plating	4s. Od. "
Silvering	10s. to 12s. Od. "

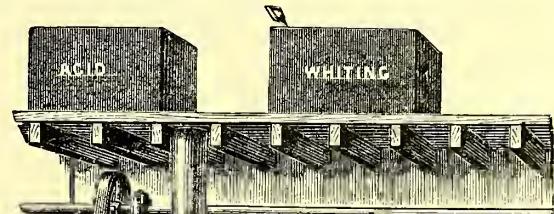


LONG LEVER.

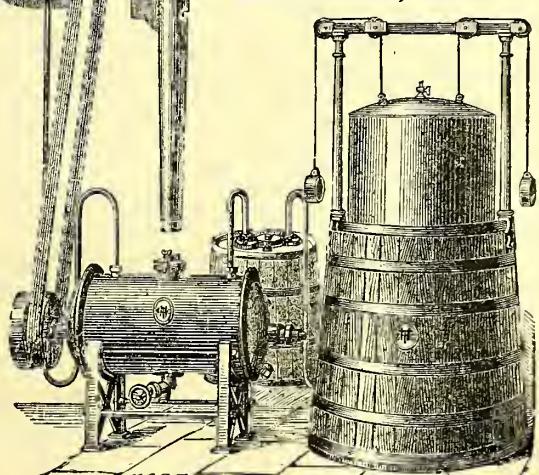
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HAYWARD TYLER & CO.

GOLD MEDAL, PARIS, 1878. [2]



HIGHEST AWARD,
MELBOURNE, 1881.



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VALLET'S PATENT IMPROVED STOPPERED BOTTLES,

Fig. 2. For Mineral Waters and Gaseous Liquids,
Are now used by upwards of 900 Soda Water Manufacturers
in the United Kingdom.

PRICES (Per Gross).—Patent Stopper, as per Fig. 1, 4/6; ditto, as per Fig. 3, 4/6; ditto, as per Fig. 4, 4/6; Patent Stoppered Bottles, ready for use; ditto Half Bottles, ditto; Patent Unstoppered Bottles; ditto Half Bottles; Fig. 9 Boxwood Bottle Openers, polished, 8/6; ditto, fitted with rubbers, 10/6; Common Wood Bottle Openers, 5/6; ditto, fitted with rubbers, 7/6; Fig. 10, New Bottle Opener, 6/-.

ROYALTY FREE.

Fig. 1.

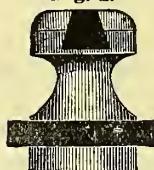


Fig. 3.

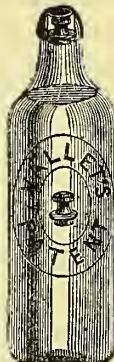


Fig. 1 Stoppers, when invoiced separately, are ready fitted with the rubber washer on, and are easily inserted into the Bottle by the simple pressure of the thumb, the washer at the same time holding in the hollow part of the stem when passing into the Bottle; it is the only Stopper which requires no tool to fit the Bottle with; and when a Bottle breaks, which seldom occurs, the Stopper is always fitted with this washer, ready to be inserted in a new Bottle. Therefore it is the most durable and inexpensive Stopper in the trade.

ADVANTAGES.—These Stoppers cannot break the Bottles. The smallest size of Stopper is equal to the largest of any Stopper out. The Stoppers are inserted without trouble. No extra cost for Bottles. The Stoppers are cheap, very durable, and particularly clean. The Filling Machine is not expensive, and quick in action. Any Filling Machine, however, will do. The Patentee guarantees the Stoppers perfect gasholders, therefore no leakage is possible. That Bottles may be opened, with or without an opener, by the pressure of the finger.

NOTICE TO THE TRADE.

It having come to my knowledge that certain parties conversant with the great and acknowledged superiority of my Patent Stopper, have so re-modelled theirs as to constitute a clear case of infringement upon my rights, I wish it to be known that I intend to take such steps against the said parties as may seem desirable, should this notice not be effectual.

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FILTERS.

THE LARGEST MANUFACTURERS IN THE WORLD.

These Filters are a perfect safeguard against Typhoid Fever, Cholera, and Blood Poisoning.

ILLUSTRATED PRICE LIST FREE, WITH CAUTION TO THOSE PURCHASING A WATER FILTER.
VERY LIBERAL TERMS TO THE TRADE.

CELEBRATED

D. FÈVRE SELTZOGÈNES AND POWDERS,

For immediate production of Soda Water, Eau de Vichy,
Sparkling Lemonade, and Aerated Wines.

D. FÈVRE, 398 RUE ST. HONORÉ, PARIS,

Sole Inventor & Proprietor of the Article and Name "SELTZOGÈNE,"
THESSIER-FÈVRE, Son-in-Law, Manufacturer.

WHOLESALE PRICES.

Celebrated	3 pint, wire covered..	12s. 0d. each.
D. Fèvre Seltzogene.	3 pint, cane covered..	12s. 6d. "
	5 pint, wire covered..	18s. 0d. "
	5 pint, cane covered..	19s. 0d. "
	8 pint, wire covered..	30s. 0d. "

Liberal discount allowed.

Case and Packing..	12 Seltzogènes, 3 pint size	4s. 0d. net.
"	12 "	5s. 8d. "
"	6 "	9s. 8d. "

Celebrated	3 pint, per doz. boxes of 12 charges,	24s. 0d.
D. Fèvre Powders	5 "	36s. 0d.
for the Seltzogènes.	8 "	60s. 0d.

Pure Tartaric Acid and	3 pint, per doz. boxes of 10 charges,	20s. 6d.
Bicarbonate of Soda	5 "	30s. 6d.
in the highest state of perfection.	8 "	45s. 2d.

Liberal discount allowed.

EXTRA:—Taps, Tubes, Valves, Washers, &c.

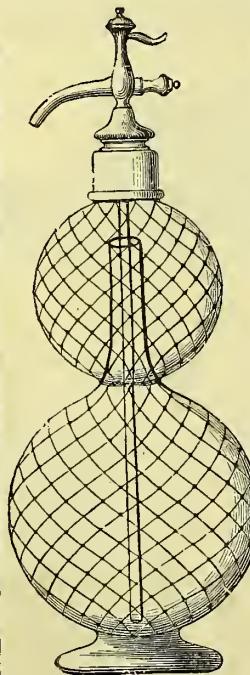
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DRIP CATCHERS, FITTINGS, MEASURES, &c.

ALL MY GOODS ARE TESTED.

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TRADE MARK.



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D. FÈVRE SELTZOGÈNES.
8s. 6d. per dozen.

Registered April 1, 1879,
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SOLE MANUFACTURER.

MAY-DAVIS'S PATENT BOTTLING MACHINE,

For Aerated Waters, Beers, Wines, &c.

Particulars of this remarkable Machine for Corked Bottles, which, while producing the highest quality, dispenses with skilled labour and breakage of bottles, besides otherwise economising, may be obtained from the PATENTEES—MAY-DAVIS & CO.,

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ESHER ST., WESTMINSTER;
OR FROM

HAYWARD TYLER & CO.,
UPPER, WHITECROSS STREET, E.C.

T. & F. J. TAYLOR'S



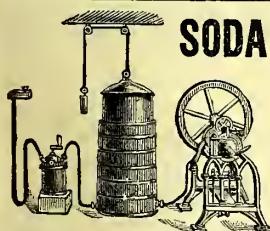
AERATED WATERS,
Newport Pagnel.

ESTABLISHED 1855.

SODA, POTASH, SELTZER, AERATED (without
Alkali), and LITHIA WATERS,
LEMONADE AND GINGER ALE.

Each Bottle is protected by a Label bearing the Signature
of the Firm.

Purity and Excellence of the Water certified by Analysis
by Professor ATTFIELD, Ph.D., F.C.S.



SODA WATER MACHINE.

EASY TERMS.

CATALOGUE FREE.

WRITE TO

N. G. WILCOCKS,
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THE CHEMISTS' SODA-WATER MACHINES.

The "GEM,"
The "MEDIUM,"
The "ACME."

N.B.—A few Second-hand Machines
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Apply for complete ILLUSTRATED CATALOGUE
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AROMATIC GINGER ALE,
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MINERAL WATERS,

As supplied to Her Majesty's Imperial Houses
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Have been Awarded TWENTY GOLD AND
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*Goods for Export are specially prepared, and are guaranteed
to keep in any climate.*

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**CANTRELL & COCHRANE,
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BINGLEY'S
SUPERIOR
Ginger Ale.

After numerous experiments the Proprietor is
enabled to offer a beverage which is considered by
many to be one of the *very best* of its kind.

It is manufactured especially for sale by Chemists
doing a family trade.

COMPARISONS ARE INVITED.

Samples may be obtained gratis, also trade terms, on application to

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NEW AND IMPORTANT DISCOVERY.

GINGER ALE
FROM PURE JAMAICA GINGER.



The difficulty of using Ginger in the Manufacture of "Ginger Ale," and at the same time having a CLEAR and SPARKLING DRINK, has after much labour and expense, been thoroughly overcome by
MESSRS. HARSTON & CO., of LEEDS.

ABSOLUTELY PURE.—
See Analysis by Drs. J. H. HASSALL,
M.D., and Otto HEHNER, F.C.S.

A CERTIFICATE OF MERIT, for superiority of quality,
was awarded to Jewsbury & Brown at the Exhibition of
Sanitary Appliances, at Owens College, Manchester, on
the occasion of the Meeting of the British Medical
Association, August, 1877.

**JEWSBURY & BROWN'S
MANCHESTER**

MINERAL WATERS,

**PURE SODA, SELTZER, POTASH, LITHIA, &c.,
LEMONADE,
GINGER ALE, AND QUININE TONIC.**

Prepared and Bottled specially for Export, and warranted to keep well.

Manufactured with the utmost care and by improved machinery, these productions are recommended for **purity and excellence of quality** by many leading members of the Medical Profession, and have for many years had a preference by the public; the flavour of the Lemonade and Ginger Ale being procured from the **fresh Fruit and Finest Jamaica Ginger**, they may be relied upon as furnishing delicious and satisfactory beverages, either for general use or specially for invalids.

The Soda Water is absolutely free from any metallic impregnation, and being by improved machinery highly charged with Carbonic Acid Gas, and each bottle containing a definite and unvarying proportion of Pure Carbonate of Soda, J. & B. have every confidence in inviting a trial from those who have not already patronised them.

The Seltzer, Potash, and Lithia Waters are prepared with the utmost exactitude and the purest ingredients.

The New Quinine Tonic furnishes a pleasant form for the administration of a most valuable restorative, and is refreshing and agreeable.

Ginger Ale (Aromatic) of superior quality, and strongly recommended as a Non-Alcoholic and warm stimulant beverage.

*N.B.—Every Bottle is protected by a distinctive Label, with Name and Trade Mark,
and each Cork is branded.*

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45 Gifford Street, LONDON, N., and Montpelier Gardens, HARROGATE.

10 per cent. discount on all Natural Waters (See List, post free).

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- 2.—Because none but Chemists (*Shareholders*) can purchase the Waters *direct*; consequently, when a Chemist has created a sale, he cannot be undersold by Grocers; whereas, if he purchase from other manufacturers, he will generally perceive that if he succeed in establishing a ready sale for any brand, the *same* Waters will soon be found to be offered by Grocers, Wine Merchants, &c., in his locality, at a lower price than that at which he can afford to sell.
- 3.—Because the Waters are acknowledged to be of the first and purest quality, being carefully filtered, and passed through silver-lined machinery, thereby preventing the possibility of any contamination whatever with injurious metals.
- 4.—Because, in addition to the ordinary Waters, Soda, Potash, and Lithia Waters can be obtained of B.P. strength, and every Chemist should stock some of these, as when Waters are ordered to be taken medicinally, B.P. preparations should always be supplied.
- N.B.—At the Food Exhibition, Agricultural Hall, 1881, the Association's B.P. Waters obtained the only Prize Medal, and at Bradford Exhibition, 1882, the Highest Medal was awarded.
- 5.—Because goods are invariably despatched on same day as order received, carefully and well packed in strong tin cases, thereby preventing breakage in transit. Town goods are delivered by the London Parcels Delivery Company, Limited, and empties collected free.
- 6.—Because the best Syphons, with tops manufactured from the purest tin, are used; also first-class ordinary bottles, carefully wired and labelled, and corked with superior corks.
- 7.—Because the labels state the exact strength of the Waters—an Essential for Chemists' Trade.
- 8.—Because every Chemist who joins is assisting in making the Association Waters famous, and is consequently helping his brother Chemist, while advancing his own interests.
- 9.—Because Chemists will learn what great power they possess when combine and how well they stand in competition with other tradesmen, provided only they are loyal to each others' interests.
- 10.—Because about 750 Chemists have joined, and PROVED that they derive considerable benefit from combination.
- 11.—Because "ÆSCULAP" can be purchased in original packages by the Shareholders on very advantageous terms. CARRIAGE PAID to any part of the Kingdom.
- 12.—Because Seltzogenes of first quality can, when required, be obtained for members at a liberal discount.
- 13.—Because about 750 Chemists ask you to join with them.
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- 15.—Because all NATURAL MINERAL WATERS can now be purchased through the Association at *cheaper rates* than can be procured elsewhere.

**FISHER'S
SOLUBLE ESSENCE OF GINGER,
SOLUBLE ESSENCE OF LEMON,
AND
GINGER ALE ESSENCE
ARE THE BEST YET INTRODUCED.**

Dr. Thresh says of the Ginger Essence: "It is by far the best Soluble Essence I have yet seen, and I doubt the possibility of making a stronger or better."

Prices and Samples from the Maker,
F. D. FISHER, GRANTHAM.

"ABSOLUTELY PURE."
SEE ANALYSIS, sent post free on application.



REGISTERED.

**ELLIS'S
RUTHIN
WATERS.**

ESTABLISHED 1825.

"CRYSTAL SPRINGS." Renowned for their purity for HALF-A-CENTURY. Situated on the premises, and exclusively the private property of the Firm.

Soda, Potass, Seltzer, Lemonade, Aromatic Ginger Ale. For Gout; Lithia Water, and Lithia and Potass Water. Corks branded—"R. ELLIS & SON, RUTHIN," and every Label is registered, and bears their Name and Trade Mark.

Sold Everywhere, and Wholesale of

R. ELLIS & SON, Ruthin, NORTH WALES,
Manufacturers to the Royal Family.

London Agents: W. BEST & SONS, Henrietta St., Cavendish Square.

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A USEFUL HANDBOOK AND VADE-MECUM FOR THE TRADE.
The contents include several valuable Trade Articles; a summary of all the Law Cases in connection with the Trade Marks and Bottle Questions up to the end of 1880; various Tables and Formulas for Laboratory Work, and upwards of 150 Recipes, Useful Hints, and Trade Wrinkles.

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H.R.H. the Duke of Connaught and the Royal Family.

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THE PUREST IN ENGLAND.

**R. M. MILLS & CO.,
BOURNE, LINCOLNSHIRE,**

MANUFACTURERS OF

SODA, POTASH, LITHIA, AND SELTZER WATERS,
LEMONADE, AND AROMATIC GINGER ALE.

4-dozen and 6-dozen Cases Carriage Paid.

Pamphlets and Price on application. Agents appointed.

10 per cent. discount on all Natural Waters (See List, post free)

HONOURABLE MENTION,
International Food Exhibition, Agricultural Hall, London, October, 1880.

HAY'S SOLUBLE ESSENCE OF JAMAICA GINGER

(Guaranteed Pure and Free from Capsicum).

Trade Price, 5s. per lb.; 12 lbs. and upwards, 4s. 6d.

Highly adapted for the manufacture of *Transparent Aerated Waters*, and for all *Dietetic, Medicinal, and Pharmaceutical purposes*.

Medical Opinions on

HAY'S Soluble Essence of Ginger.

"Singularly free from resin."—*The Lancet*.

"It should entirely supersede the official preparation of the British Pharmacopœia."—*Medical Press*.

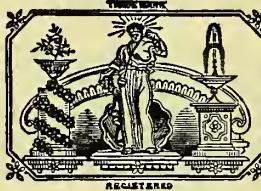
Medical Opinions on

HAY'S Ginger Champagne.

"An excellent and most agreeable beverage."—*The Lancet*.

"Made by Mr. HAY, of Hull, with his well-known Soluble Essence of Jamaica Ginger, takes rank as a pure, wholesome, stimulating, and non-alcoholic beverage."—*British Medical Journal*.

One of the most delicate and wholesome drinks in the market.—*Medical Press*.



HAY'S Ginger Ale.

"It pours out with as fine a 'head' as any glass of ale, and possesses all the fine aromatic flavour of the pure ginger. It is a beverage which is sure to win favour wherever introduced."—*The Chemist and Druggist*.

Medical and other Opinions on the

Ginger Beer made from HAY'S Soluble Essence.

"An excellent effervescent drink."—*The Lancet*.

"Preferable to some wines we have tasted under the name of 'champagne'."—*Medical Press*.

"Has the purest Jamaica Ginger aroma, and ought to attain great popularity."—*The Chemist and Druggist*.

The aroma is fine, the flavour delicate, and the pungency admirable, and we should be glad to see the Essence introduced into this country.

Carbonated Drinks. New York, U.S.A.

THE COMPOUND FORTIFIED ESSENCE Specially adapted for the Manufacture of the FINEST GINGER ALE.

This Essence, which is an addition of Vanilla, Lemon, and other flavours to the above, is strongly recommended for the manufacture of the finest Ginger Beer and Ginger Ale. It imparts, with the exquisite Ginger Aroma of the above-mentioned Essence, a peculiarly fine fruity flavour combined with the fullest amount of fragrance and pungency.

Trade Price, 5s. 6d. per lb.; 12 lbs. and upwards. 5s.

HAY'S GINGER CHAMPAGNE ESSENCE FOR THE MANUFACTURE OF GINGER CHAMPAGNE.

This Essence is a combination of the Finest Flavours, and imparts with the Ginger, a most exquisite Aroma.

Trade Price, 8s. per lb.; 12 lbs. and upwards, 7s. 6d.

HAY'S GINGER ALE ESSENCE, HIGHLY CONCENTRATED.

This Essence is a complete Bouquet of the Finest Ginger, Lemon, and other flavours in a highly concentrated state. Ginger Beer and Ginger Ale made with this Essence will possess an amount of Aroma, Flavour, and Quality that have hitherto been without precedent, and that will be sure to command a large sale.

THE COST IN MANUFACTURE IS ABOUT ONE FARTHING PER DOZEN BOTTLES.

Trade Price, 9s. per lb.; 12 lbs. and upwards, 8s. 6d.

HAY'S GINGER ALE EXTRACT

SUPPLIES PUNGENCY, AROMA, COLOURING, AND FLAVOURING.

This Extract is strongly recommended for the manufacture of Ginger Ale, to which it imparts an unusually Fine Flavour and Great Brilliance, at a cost of a little under 1d. per dozen bottles.

Trade Price, 4s. 6d. per lb.; 12 lbs. and upwards. 4s.

PREPARED BY

W. HAY, Manufacturing Chemist, BEVERLEY ROAD, HULL.

Agents—Messrs. HEARON, SQUIRE & FRANCIS, Wholesale Druggists,
5 COLEMAN STREET, LONDON, E.C.

W. HAY CAUTIONS THE TRADE against the use of those spurious so-called SOLUBLE ESSENCES which, besides having NO GINGER AROMA, are FLAVOURLESS, RANK, and DISAGREEABLE, and are little more than TINCTURES OF CAPSICUM.



BITTER WATER COMPANY, LIMITED.

38 SNOW HILL, HOLBORN VIADUCT
LONDON, E.C.

SIR,—

IN order to keep before the Medical and Pharmaceutical Professions the latest authentic researches with regard to Natural Mineral Waters, I beg to call your attention to the following references which have appeared since the issue of the pamphlet on "Æsculap."

In Dr. Sydney Ringer's "HANDBOOK OF THERAPEUTICS," 10th edition, 1883, p. 220, is the following:—

"An excellent way to administer some of these Salts (Sulphate of Soda and Magnesia) is in the form of"

*"PERHAPS, BEST OF ALL, ÆSCULAP WATER,
"in doses varying from a wine-glassful to half a tumblerful or more."*

In "THE MINERAL WATERS OF EUROPE," 1883, by Professor Tichborne and Dr. Prosser James, ÆSCULAP BITTER WATER is placed at the head of Class I. of Strong Purgatives (p. 214), as it is—

*"The chief of the 'Open' Group"
"A mixed purgative, with well-marked antacid reactions"
"three times as rich in antacids"
"contains nearly three times as much Chloride of Sodium"
"not so unpleasant to take"
"and is free from organic impurity."*

Great weight is attached to the modifying effects of the Antacids and Chloride of Sodium, as—

*"These two Salts are admirably suited to reinforce the Sulphates, and the
"Mineral Waters thus constituted are remarkable for their efficacy as well
"as for their mildness."*

I shall be glad to forward you a supply of circulars, descriptive pamphlets, and copies of testimonials, show-cards, &c., free of charge, on application.

I remain, Sir, yours obediently,

E. SAMSON,
Manager.

HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS, FOR THE PRODUCTION OF THE FINEST LEMONADE.

Added in the proportion of one fluid ounce to each gallon of syrup, the soluble essence imparts the most delicious flavour of the Lemon.—*The Chemist's Journal.*



The Essence mixes well with water, and has a delicate flavour. The Lemonade made therewith has a far more delicate flavour than that generally met with.—*The Chemist and Druggist.*

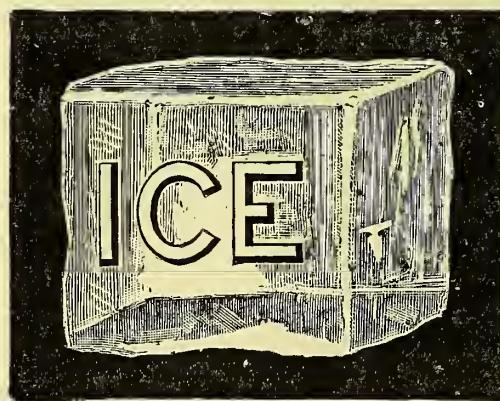
Trade Price, 8/6 per lb.; 12 lbs. and upwards, 8/-.

PREPARED BY

W. HAY, Manufacturing Chemist,
BEVERLEY ROAD, HULL.

FOREIGN MINERAL WATERS.

FREDERICKSHALL	(5 Cases, 6d. per Case less), 2/- Case, 30 bot.; 3/- Case, 60 1/2-bot.
APOLLINARIS WATER	25/- Hpr., 50 1/2-hits.
	30/- Hpr., 100 1/2-hits.
"Carriage paid"	Hampers free 5 per cent. discount if 20 Hampers.
HUNYADI JANOS	(10 Cases, 3/- and 5/- less), 30/- Case, 25 bts.; 50/- Case, 50 1/2-hits.
SELTZER	11/- Hpr., 25 bts.
	15/- Hpr., 50 1/2-hits.
PULLNA	18/- Case, 20 hits.
	30/- Case, 50 1/2-hits.
VICHY	31/- " 60 bts.
	37/- " 50 1/2-hits.
CARLSBAD	37/- " 50 bts.
KISSENGEN	42/6 " 50 "
SCHWALLBACH	27/6 " 50 "
HOMBURG	40/- " 50 "
WILDUNGEN	43/- " 50 "
CARLSBAD'S ALTS.	1-Bots., 20/- per doz.; 1-Bots., 40/- per doz.; Bot., 80/- per doz.



REGISTERED AT STATIONERS' HALL.

BECKETT'S WINTERINE. (WINTER PUNCH.)

*The Best Substitute for Brandy. An Invaluable Stomachic and Stimulant.
CAN BE USED WITH EITHER HOT, COLD, OR AERATED WATER.*

"Beckett's Winterine is a capital drink, possessing an agreeable aromatic fragrance and a delicate flavour that will gain universal favour."—*Church of England Temperance Chronicle.*
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"It cannot fail to recommend itself both to the medical profession and the public generally after a single trial."—C. HATHAWAY, Esq., M.D., Bath.
Pints, 1s. 9d. (sufficient for 20 tumblers); Half Pints, 1s.; Quarter Pints, 6d.

Sole Manufacturer, W. BECKETT, HEYWOOD, MANCHESTER.

Wholesale Agents—BARCLAY & SON, SANGER & SON, EDWARDS & SON, &c., &c.

HAY'S GINGER CHAMPAGNE

CAN BE OBTAINED FROM THE SOLE AGENTS,

INGRAM & ROYLE,

119 QUEEN VICTORIA STREET, LONDON, E.C.,
AND BATH BRIDGE, BRISTOL.

Retail Price, in Half Champagne Bottles, 5/6 per doz.

This SPARKLING, EXHILARATING, and REFRESHING DRINK, while being far more agreeable in bouquet and flavour than the FINEST CHAMPAGNE WINE, is, at the same time, unlike it, FREE from ALCOHOL.

It is strongly recommended both for Juveniles and Adults, &c., as the most Wholesome Stimulating Beverage that has hitherto been introduced, and should be in every household during all seasons of the year.

Samaritan Free Hospital, Lower Seymour Street,
Portman Square, London, W.

Dear Sir,—I have tried your Ginger Champagne, which I find to be excellent, and I look upon it as a step in the right direction towards meeting a long-felt want. Our Senior Physician, Dr. Henry Savage, has also tried it, and is much pleased with it. We ought long ago to have had such a beverage, and I believe that a great deal of drinking would thus have been prevented. I wish your effort much success.

I am, dear Sir, yours faithfully,
GEORGE SCUDAMORE, Secretary.

An excellent and most agreeable beverage.—*The Lancet.*

Made by Mr. Hay, of Hull, with his well-known SOLUBLE ESSENCE OF JAMAICA GINGER, takes rank as a PURE, WHOLESOME, STIMULATING, and NON-ALCOHOLIC beverage.—*British Medical Journal.*

One of the most delicate and wholesome drinks in the market.—*Medical Press.*

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NORWAY BLOCK ICE

FROM FINEST LAKES IN
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Professor Frankland's report with analysis:—
"The Ice is exceedingly pure, and contains less foreign matter than any water with which I am acquainted in this country."

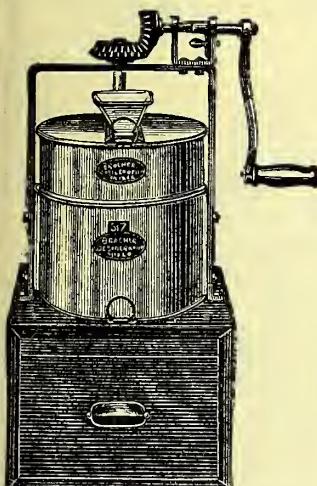
Original Blocks

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1 cwt. to 2 cwt. ... 2s. 6d. per cwt.
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Packing free. Utmost promptitude in despatch.

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Hunyadi János

CAUTION.—Circumstances which have come to the knowledge of Andreas Saxlehner, Buda Pest, Sole Proprietor of the Hunyadi János Spring, compel him to warn the British Public against SPURIOUS IMITATIONS. To secure genuineness, purchasers should see that every bottle has on the LABEL the name of "THE APOLLINARIS COMPANY (LIMITED), London."



BRACHER'S PATENT "Desideratum" Mixing Machines

Admirably adapted for mixing all kinds of powders, heavy or light, in the shortest possible time, thereby superseding to a great extent the use of the Pestle and Mortar, supplying a long-felt want amongst Chemists and Druggists, Grocers, Confectioners, Drysalters, Colour Merchants, and Manufacturers, and are capable of mixing either large or small quantities more quickly than by any other method. They can be worked either with or without the cover, are easily cleaned, and are, without doubt, the best and cheapest Mixing Machines ever invented; indeed, it would scarcely be thought possible that the articles could be so thoroughly blended in such an incredibly short time.

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SCOTT'S MIDLOTHIAN OAT FLOUR

IS UNEQUALLED AS THE MOST WHOLESOME AND NUTRITIOUS FOOD FOR INFANTS AND INVALIDS.

SCOTT'S MIDLOTHIAN OAT FLOUR, which is made entirely from the finest quality of Midlothian Oats, is so purified from the Fibrous Integument, that it has concentrated in it 80 per cent. more flesh and bone forming properties than the finest Oat Meal, which is acknowledged to be the most nutritious of all Cereals. Unlike many preparations sold for Infants' Food, which contain a mixture of Cereals that would require different degrees of boiling to become properly assimilated, SCOTT'S MIDLOTHIAN OAT FLOUR is easily prepared, most satisfying and invaluable in promoting a healthy regularity of system when given to infants, as it can be used through an ordinary Feeding Bottle by Infants of Two weeks old. For Invalids and Adults, SCOTT'S MIDLOTHIAN OAT FLOUR is unequalled as a satisfying, nourishing, and easily digested food. Highly Recommended and used by Eminent Physicians. Used in the leading Hydropathic Establishments. Sold by GROCERS and CHEMISTS in Tins of various sizes.

Sole Makers—A. & R. SCOTT, MILLERS, GLASGOW.

GIBSON'S

DELECTABLE JUJUBES, VOICE JUJUBES, AND GLYCERINE PASTILLES

Put up in 4-lb. Decorated Tins with Glass Lids, **TINS FREE**, are now being inquired for by buyers from all parts of the world. They are not surpassed in quality by any maker, and give entire satisfaction.

MEDICATED and HIGH-CLASS LOZENGES, of every kind.
Sent out in 2-lb. or 4lb. Bottles, Bottles Free; or in Tins, from 10 lb. upwards.

LIME JUICE TABLETS. **PURE MALT TABLETS**

ACID DROPS, AND BEST QUALITY BOILED SUGARS OF EVERY KIND.

GIBSON'S ORIGINAL CHLORODYNE LOZENGES.

PENNY SUGAR WORM CAKES, suitable for either children or adults. Have an immense sale, keep in any climate, and please everybody. Manufactured by

ROBERT GIBSON, Carlton Works, Hulme, Manchester, and 1 Australian Avenue, London.

Price Lists sent on application. Our Goods can be bought through any Wholesale or Export House in London. Indents should be marked "Gibson's."

MONTserrat LIME FRUIT JUICE & CORDIAL

FOR SUMMER AND WINTER USE.

SUITABLE FOR ALL CLASSES IN ALL CLIMES!



SUITABLE FOR ALL CLASSES IN ALL CLIMES!

(In Summer mix with cold water; in Winter, with water as hot as it can be taken.)

ADVERTISED ALL OVER THE WORLD!

Montserrat Pure Lime Fruit Juice.

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Cordial.

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100,000 GALLONS OF LIME JUICE IMPORTED ANNUALLY!

CHEMISTS SHOULD MAKE THIS A SPECIAL LINE.

*The Montserrat Lime Juice enterprise was established by the philanthropist Edmund Sturge to provide work for the liberated slaves***CAUTION!**

THE GREATEST CARE should be observed that "MONTserrat" LIME-FRUIT JUICE and CORDIALS only are supplied, as there are numerous concoctions sold under the name of Lime-Juice Cordial that are entirely artificial, or so charged with deleterious acid as to be injurious to health. The Consignees call attention to the following letter:

"Whereas the great popularity which has been attained by the Montserrat Lime-Fruit Juice grown on the estates of the Montserrat Company in the West Indies, of which Evans, Sons & Company, Liverpool, are the Sole Consignees, has led unprincipled persons to endeavour to use the name of our West Indies in connection with other and inferior Lime or Lemon Juice which they sell, I think it necessary to state that the whole of the raw Lime-Fruit Juice from the estates which were established by me, and are now carried on by the Montserrat Company, is, and has been for the last twelve years, consigned to Evans, Sons & Co., of Liverpool.

"London, April, 1883. (Signed) EDMUND STURGE."

BOTTLED ONLY BY **EVANS, SONS & CO., LIVERPOOL**, SOLE CONSIGNNEES OF THE MONTserrat CO. (Limited),
EVANS, LESCHER & WEBB, H. SUGDEN EVANS & CO.,
 London. Montreal, Canada; and Boston, U.S.A.

N.B.—No Lime Juice can be Montserrat unless bearing the Trade Mark on Capsule as well as Label of each Bottle.

A NOVELTY!**MONTserrat LIME-JUICE SAUCE.**

FOR ALL CLIMATES AND ALL PALATES.

The Strongest and most Delicately-flavoured Sauce, and the Cheapest.

Usual 2s. size for 1s.

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F. DARTON & CO.,

MAKERS TO H.M.'S GOVERNMENT,

Established
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45 ST. JOHN STREET, WEST SMITHFIELD.

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Darton's Improved Imperishable Index Clinical Thermometers,

As noticed in the *Lancet*, *Chemist and Druggist, &c.*, can be obtained only of the Inventors and Makers; cannot get out of order, and are therefore specially suited for Export.

PLAIN CLINICAL THERMOMETERS (FAHRENHEIT OR CENTIGRADE SCALE).

4 or 6 in., in case, 3/6 each. 4 in. or 6 in. ditto, contracted in Ebony Case, 4/ each. If with Magnified Bore, 6/ each.

DARTON'S IMPROVED DITTO. IMPERISHABLE INDEX, 4 or 5 in., 5/ each. Ditto, Enlarged and Magnified Bore, with lens front, 7/ each. One Bent and One Straight 6-inch Clinical Thermometer, in Morocco Snap Case, 10/6 the set. Kew Certificates, 1/3 each extra.

BATH THERMOMETERS, Japanned Tin Cases, Silvered Metal Scales, 8 inches long, 12/ per dozen. Ditto, Enamelled Tubes, with Dr. Forbes' Specifications, 15/6. 8-in. Boxwood ditto, with spirit tubes, 5/6 dozen. Ditto, Bevelled Porcelain Scales, 18/ dozen.

All kinds of Thermometers and Barometers made to Order.

A large Selection always in stock.

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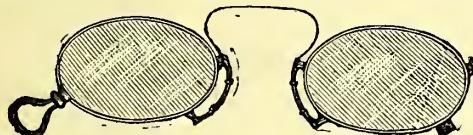


Iron Frames, Convex Glasses, Assorted Sights. Common, 18/ per gross. Better ditto, 21/ and 30/ per gross. Cases for ditto, 12/ per gross.

Steel Frames—Common, 4/6 & 6/ per dozen. Better Quality, 10/ per dozen. Ditto, fitted with Neutral Tint Glasses, 12/ per dozen. Large Eye, Best Quality Frames, and Best Neutral Tint Glasses, 30/ dozen. Ditto Light Ball-Joint Frames, 18/ per dozen. Ditto Light Straw Frames, Grooved Glasses, 24/ per dozen. Ditto Extra Light Frames, Best White Glasses, 36/ per dozen. Pantoscopic ditto, with Polished Edge Glasses, 36/ per dozen. Steel Frames with Convex Pebbles, 27/ per dozen. Ditto Better Quality Frames, 42/ per dozen. Ditto Best Pebbles, 48/ per dozen.

Ditto Extra Light Frames and Best Pebbles, 60/ per dozen. Globular Spectacles, Neutral Tint, Domed Glasses, 7/6 per dozen. Ditto Stout English, 30/ per dozen. [dozen.

D EYE SPECTACLES, Neutral Tint Glasses, Best Quality, 43/ per



Common Steel Folders, 4/6 per dozen. Steel, 6/ and 7/6 per dozen. Ditto Grooved Glasses, Light Frame, 15/6 per dozen. Ditto Nickel Plated, Grooved. Extra Light, 24/ per dozen. Ditto Best Fancy Handled, 42/ per dozen.

Nickel Plated Folders, Coloured Glass, 36/ per dozen. Tortoiseshell ditto, Convex Glasses, 30/ per dozen. [dozen. New Pattern Gold Cased Japanese Folders, will wear like gold, 60/ per

FRAMELESS FOLDERS from 8/6 per dozen. Nickel Plated Japanese Folders, with Domed Glasses, Best Finish, Blue and Neutral Tint, 30/ per dozen.

New Illustrated Price List of Spectacles and Folders, with Trade Terms, on application.

FRAMELESS FOLDERS—continued.

Gold Spectacles, from 11/ per pair.

Gold Folders, from 13/ per pair.

Tuck Cases, 14/ per gross. Folder Cases, 14/ per gross. Ditto, all Leather, 30/ per gross. Ditto, Superior, 24/ per gross. Ditto, best Morocco, 48/ per gross. Best ditto, Velvet Lined, 42/ per gross.

French Frog Mouth Cases, 4/6, 6/ and 8/ per dozen.

EYE-GLASS CORDS, Black Silk, 7/6 per gross. Ditto, Best Quality, 10/6 per gross. Ditto, with Ball and Swivel, 24/ per gross.

UNBREAKABLE GILT CORD, 3/ per dozen yards.

AMERICAN AUTOMATIC EYE-GLASS CORDS, with spring and Swivel, 7/6 per dozen.

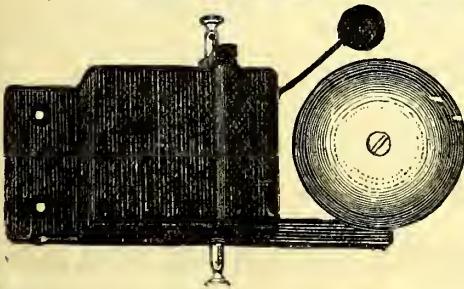
** Single articles cannot be supplied at these prices.

For the convenience of Customers who have not yet started the Sale of Spectacles, we fit up Show Cases, containing an assortment of Spectacles, complete with Sight Tester and Instructions, as follows:



Our £2 2s. SHOW CASE for the Counter, in Polished Mahogany, contains 4 dozen Spectacles, Sight Tester, and Instructions for suiting sight. Our £3 3s. CASE contains, in addition, 2 dozen Folders and 2 dozen Cases. Larger sized Cases, in Polished Mahogany or Ebonised, with an assortment of superior quality Spectacles, Folders, and Cases, £6 6s. and £10 10s. Ditto, with assortment of Best Pebble Spectacles and Folders, £21.

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New Form Metal Frame Electric Bell, with 2½ Plated Dome, 4/6 each. Complete, with Large Battery, Push Piece and Wire, and Instructions for Fixing. If with best quality bell, 14/6.

Invalids' Electric Bell Set, with Bell and Battery in Polished Case, 30 feet of Flexible Line Wire, and Pear Push. 21/ each. Ditto in polished Mahogany Case, with 3-in. best bell, 27/.

Estimates given for Fitting up Houses or Shops.

Magneto Electric Machines, in Pine Case, 10/6; ditto in Mahogany, 16/6; ditto, best quality, with plated handles, &c., 22/6.

Incandescent Lamps for the Electric Light, 4/ each. Ditto, with 3 Cell Battery complete, 21/ each.

NEW ILLUSTRATED PRICE LIST OF ELECTRIC BELLS AND FITTINGS SENT POST FREE ON APPLICATION.

T. KERFOOT, MANUFACTURING PHARMACEUTICAL CHEMIST, MEDLOCK VALE WORKS, MANCHESTER.

Manufacturer, by Special Process, of every description of Superior Medicated Lozenges, Medicated Jujubes, Candies, and Boiled Sugars; also Granular Citrate of Magnesia, and all Granular Preparations.

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DELECTABLE,
VOICE,

MAGNUM BONUM,
GLYCERINE,

LICORICE,
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CHLORODYNE, &c.

Beautifully finished, delicious flavours, and non-adhesive.

In 2-lb. and 4-lb. Tins: 1/9 per lb.

TINS FREE.

LOZENGES

Of all the Pharmacopeia kept in Stock. Our list of these is too large to publish; but it embraces all the kinds known to Pharmacy. We offer buyers the advantage of Medicated Lozenges made and dried at very low temperature, and the medicinal activity of which can be guaranteed. Lozenges from private formulæ stamped with Chemist's Own Name, and cut to any desired shape.

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HOREHOUND AND HONEY CANDY,
in 6-lb. boxes,
LINSEED CANDY,
in 6-lb. boxes.
MALT CANDY,
in 4-lb. boxes,
10d. per lb.

These Candies are neatly
got up, with glass lids to
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for counter or window dis-
play. The two first-named
are protected by regis-
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SUPERIOR
DIGESTIVE
CANDY,
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BOILED SUGARS.

LIME FRUIT.
LEMON.
MIXED FRUIT.

VANILLA.
BLACK Currant.
PEPPERMINT.

RASPBERRY.
ROSE.
GREENGAGE.

MALT.
ANISEED.
BARLEY SUGAR.

JARGONELLE.
PINEAPPLE.
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EVERTON.
HOREHOUND.
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In 4-lb. bottles, 8d. per lb.

VERMIFUGES.

SWEET WORM CAKES OF FRUIT
AND SUGAR,
Suitably Medicated,
In 3-doz. and 6-doz. Tins, 8s. per Gross.

GINGERBREAD WORM CAKES,

8s. per Gross,

In 3-doz. and 6-doz. Tins.

ROUGH SUGAR WORM CAKES,

8s. per Gross,

In 3-doz. and 6-doz. Tins.

SWEET WORM CAKES are made either Pink or Yellow, and Name and Address will be stamped upon quantities of One Gross.
Each Cake is wrapped in separate wrapper and full directions for use. *Special Quotations for Quantities.*

COMPRESSED CHLORATE OF POTASH PEARLS.

3/6 per lb. Sixpenny Boxes of the above, 3/ per dozen.

Other Compressions can be quoted for. These Pearls have a large sale wherever introduced; they are made by very powerful machinery, and are the HARDEST COMPRESSIONS IN THE MARKET.

KERFOOT'S CITRATE OF MAGNESIA.

Extra Quality, 1/6 per lb.; we label this "CITRATE OF MAGNESIA." No. 1, 1/1; No. 2, 1/- per lb.
Special Quotations for Large Quantities.

EFFERVESCENT SALINE OF VERY HIGH QUALITY.

1s. 2d. per lb.

A large and long experience in the manufacture of Effervescent Preparations for all Climates enables us to prepare and send out this Saline in perfect condition, and to guarantee it to keep good for an indefinite time.

CITRATE OF MAGNESIA and SALINE Packed in Bottles of all sizes, Labels of which will be submitted on application.

T. KERFOOT, Medlock Vale Works, MANCHESTER.

KERFOOT'S GELATINE LOZENGES

Are Unsurpassed for High Finish and Fine Flavour!
Retain their Lustre, & keep Sweet & Good in all Climates!

SPECIALLY PACKED FOR HOME AND EXPORT TRADE.
SHIPPERS AND LARGE BUYERS ARE INVITED TO SEND FOR QUOTATIONS.

T. KERFOOT, Manufacturing Pharmaceutical Chemist,
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"SWEET" ESSENCE OF RENNET.
McMaster, Hodgson & Co., Dublin,
ORIGINAL MANUFACTURERS AND PROPRIETORS.

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Time of making the Entry.	Title of Book.	Name of Publisher, and Place of Publication.	Name and Place of Abode of the Proprietor of the Copyright.	Date of First Publication.
June 30, 1870.	WARREN'S SWEET ESSENCE OF RENNET, for making Curds and Whey—Label.	M'MASTER, HODGSON & Co., 121 & 122 Capel Street, Dublin.	M'MASTER, HODGSON & Co., 121 & 122 Capel Street, Dublin.	June 16, 1870.

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(Signed) **JOS. GREENHILL**,
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As there are numerous counterfeits, be careful to order McMaster, Hodgson & Co.'s Genuine "Sweet" Essence of Rennet.

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Is guaranteed to be prepared from the pure colouring ingredients of the Annatto plant. It is perfectly soluble, always producing the same uniformity of colour; does not FADE, nor FLAVOUR Butter or Cheese.

It has been Awarded FIRST PRIZE at the National Agricultural Show, Victoria, Melbourne.
Messrs. W. CLARK & SON, Bristol, write:—“We have introduced your improved Annatto to many of our large Dairies in the Cheddar District, and

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DR. LINCK'S GENUINE MALT EXTRACT.

Strongly recommended by the most distinguished Medical Authorities, and being considered a Preparation of the highest merit, is not to be confounded with other makes of the same and similar descriptions.

Chemists introducing the above to their Customers, and particularly to the Medical Profession, will find this Preparation of Malt so highly appreciated as soon to command a constant sale.

Sole Consignees for the United Kingdom, R. BAUR & CO., LONDON.

Retail Price, 2s. 3d. per large bottle (one size only kept).

Two of the Analyses of Dr. Linck's Malt Extract.

By Dr. Arthur Hill Hassall, Senior Physician to the Royal National Hospital for Consumption, Author of *Food and Its Adulterations, &c.* — My analysis proves that this Extract is pure, is prepared with very great care, and will be employed with success. Composition, 23 per cent. Water 35 per cent. Dextrine, 36 per cent. Sugar.

By Dr. Hoppe-Seyler, Professor of Physiological and Pathological Chemistry at the University of Strassburg. — "I have received for analysis Dr. Linck's chemically pure Malt Extract. The analysis shows that the same contains 33 per cent. of Sugar, 36 per cent. of Dextrine, only a trace of Lupulin, a small quantity of Phosphate of Magnesia (contained in the malt), and a few traces of Albumen. It is entirely free from any injurious ingredient. I therefore consider the same a very useful preparation and an excellent nutritive agent."

HENRY'S CALCINED MAGNESIA

Continues to be prepared with scrupulous care in the greatest chemical purity, by

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And is sold in bottles, authenticated by a Government Stamp bearing their Names and Trade Mark, "Henry's Calcined Magnesia."

Price 4s. 6d. or 2s. 9d.

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EVANS'S EXTRACT OF MALT.

Strongly Recommended in Asthma, Bronchitis, Consumption, Atrophy, Indigestion, and in Stomach Coughs.

(Vide Report of Professor Attfield, Ph.D., F.C.S., Professor of Chemistry to the Phar. Soc. of Great Britain.)

Nov., 1872.—"EVANS'S EXTRACT is incomparably more valuable than any preparation of Malt hitherto offered to the public."

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The introduction of this Preparation to the notice of the Profession for every variety of bleeding arose from the desire expressed by several eminent Physicians and many patients to obtain an efficient Styptic at a moderate price—Ruspin's celebrated Styptic being so costly.

P. C. SMYLY, M.D., &c. Surgeon to the Meath Hospital, writes:—"I find it of the greatest use, in fact, in every instance was equal, if not superior, to Ruspin's Styptic." T. P. MASON, M.D., &c., Physician to Mercer's Hospital, writes:—"The Styptic you had the goodness to forward to me, I found highly advantageous in the Hemorrhage of Phthisis."

Circulars of these Preparations may be had on application.

JOHN EVANS, CHEMIST TO THE QUEEN and H.R.H. THE PRINCE OF WALES,
49 Dawson Street, Dublin, Ireland.
AGENTS U.S.A.—WYETH & BROTHER, PHILADELPHIA.

KOLA ! WHAT IS KOLA ?

KOLA NUT. Certain cure for Dipsomania. Cures drunkenness in half an hour. Alcohol will not make you drunk if you eat Kola! If persevered in it removes the craving for strong drink! Enables its partaker to undergo long fast and fatigue. Is an appetiser, a tonic, good for anyone at any time. See leading article devoted to this wonderful plant, *Daily Telegraph*, Aug. 24, 1883.

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"LANCET,"

March 3rd, 1883, p. 369.

"THE BRIT. MED. JOURNAL,"

July 21, 1883, p. 121.

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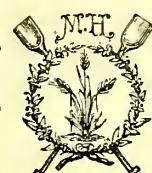
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Surgeon St. Vincent's Hospital

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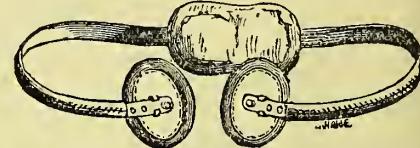
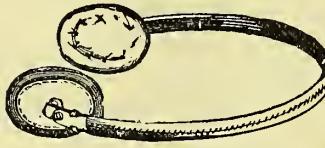
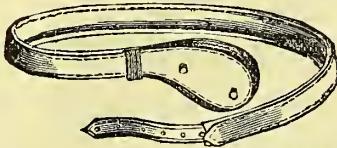
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FIG. 1.

FIG. 4.

FIG. 5.



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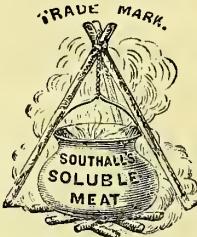
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PUBLISHER'S NOTICE.

Copies of the next number of THE CHEMIST AND DRUGGIST (March 15) will be sent to all shippers of drugs, chemicals, and drysalteries in the United Kingdom, so far as they can be ascertained, with a request that they will file the copy for reference when filling their indents.



In the House of Commons, on February 7, Mr. Warton asked the Secretary of State for the Home Department whether his attention had been called to the case of William Henry John Heath Sheahan, aged seven months, on whose body an inquest was holden on December 31, 1883, by Dr. Danford Thomas, and whose death the jury found was caused by the antimony contained in a patent medicine called "Holt's Specific for Whooping-cough"? Whether he was aware that the jury desired to call his attention to the sale of patent medicines, with a view to legislation on the subject? And whether it was his intention to bring in a Bill to restrict the sale of poisonous patent medicines?

Mr. Mundella said: The attention of the Privy Council has

been directed to the case referred to by the hon. member, and to other similar cases, and a Bill is now under consideration, which will be introduced very shortly in the House of Lords, dealing with the whole subject.

Mr. Warton: May I ask the right hon. gentleman to back my Bill? (Laughter.)

The Chemists and Druggists' Trade Association are to join with the Pharmaceutical Council in sending a deputation to the Lord President of the Privy Council to discuss the Pharmacy Act Amendment Bill.

The Pharmaceutical Society of Ireland have obtained an opinion from the Attorney-General for Ireland in reference to the interpretation of the term "keeping open shop." The opinion only expresses what was generally understood in England as to the rights of companies, partnerships, &c.

In our "Druggists' Lawyer" our legal contributor summarises a large number of cases which have been decided in reference to proprietary titles. The attempt to find a definite principle on which these decisions are based is not very easy, as will be judged by an examination of the varying results.

We report two chemists fined for insufficient formalities in selling prussic acid, two cases of poisoning by mistaking bottles, a case of poisoning from the careless use of a quack medicine, and a case of death, at Manchester, of a child who had been attended by a chemist who then received his third censure from a coroner or jury. The herbalist in London charged with manslaughter has been acquitted, as the poisonous nature of lobelia was disputed by medical witnesses.

The new register of chemists and druggists shows a total of 13,665 names, being an apparent increase of 133 over the previous year; but it must be remembered that during the past year there has been no official "purge" of the names, such as is generally made every second year. Pharmaceutical chemists number 2,248 of the above; chemists and druggists who have passed the Minor only, 3,508; while other chemists and druggists, including those who passed the Modified examination, number 7,909. The total membership of the Pharmaceutical Society has declined from 2,661 to 2,623, but this is compensated by an increase of 135 associates and apprentices.

A boy at Aberdeen employed as a labeller in aerated-water works had one eye destroyed by the bursting of a bottle. He sued his employer for 300*l.* damages; but the sheriff (whose judgment we publish) found, on the evidence, that the bursting of a bottle during labelling was so rare that it was not incumbent on the employer to provide special protection, and that, therefore, in this case the master could not be held to be liable.

The eighteenth Chemists' Ball was held at Willis's Rooms on January 16, and was much enjoyed by those present. Mr. Carteigne took the chair at the supper, and proposed the usual one toast, "Success to the Chemists' Ball." Mr. F. B. Warrick, the honorary secretary, was highly complimented on the excellence of all his arrangements. On February 6 the third Junior Pharmacy Ball was held, also at Willis's Rooms. Professor Attfield, F.R.S., occupied the chair at the supper. There were 360 ladies and gentlemen present at this ball—a larger number than took part in the older-established concern. The credit of the success of this institution is due to Mr. W. H. Kerr, of Conduit Street. Another ball, attended by 390 persons, has been held at Birmingham. One thousand ball tickets sold to chemists in the month. Hard times!

The Chemists' Assistants' Association will hold their annual dinner at the Holborn Restaurant on February 20. Mr. S. R. Atkins, of Salisbury, has consented to preside.

Pharmacalia.

THE ROYAL BOTANIC GARDENS.

THE Royal Botanic Society is determined to sustain its reputation and to extend its usefulness. A handsome and convenient glass corridor, 25 feet wide, and, in all, 200 feet long, now replaces what was formerly a covered entrance and gives ample space for indoor exhibitions. Very soon the mournful appearance of the students' section will be replaced by its former attractions, and we need hardly remark that a few hours spent in this department will be of far more use in practical botany and the recognition of plants by their distinctive characters than information laboriously acquired from books.

* *

DOUBLE FLOWERS.

The secretary, as usual, contributes in his Quarterly Record many interesting details on plant life based on experiments made in the Society's own garden. He alludes to the common use of the term "double flowers." These are produced in various ways, none confirming the popular interpretation of the word. The change is due principally to the transformation or malformation of one or more natural forms of various parts of a flower; and not to the repetition or doubling of one or more natural forms of any part, or doubling of the whole flower, the scientific term, *flore pleno*, being the more expressive and correct. Fruits or seeds are not as a rule obtained from double flowers, because the seed-producing parts, stamens and pistil, have been transformed into petals; but this does not apply to composite flowers, for the doubling is merely an addition to, or alteration in form of, the non-essential parts of the flower, and fertility is not destroyed. There is, however, this curious circumstance, that these double flowers do not reproduce their like, but new varieties, which may thus be indefinitely increased.

* *

RHEA, OR CHINA GRASS.

One of the most beautiful of fibres utilised by man is that commercially known as rhea, or China grass, which, when properly manufactured, more resembles silk than any other textile fabric. It is the product of a true nettle, the silky fibre being obtained from *Urtica nivea*; and, what is more to the purpose, it has been growing for the last five and twenty years at Regent's Park. While the advantage of the fibre is indisputable, there remains the difficulty of separating it from the stem, this having hitherto been effected by hand-labour. The Indian Government makes a standing offer of a prize of 5,000*l.* to any ingenious individual who will invent a suitable machine. In these days, when commercial pharmacy does not seem too buoyant, it would, perhaps, be well to direct original research into that direction, and the garden authorities are willing to furnish specimens for trial.

* *

FLOWERS IN DWELLING-ROOMS.

A more tangible object of ambition might very properly be included in the work of our botanical students. The superstition that the presence of growing plants in dwelling-rooms was unfavourable to health has been exploded. The rich man and the cottager alike can enjoy the bright companionship of flowers without fear of evil consequences. Professor Bentley years ago stated in a lecture that one small animal breathing out carbonic acid in a closed apartment was far more to be dreaded than a whole range of plants. In view of the International Health Exhibition, the Regent's Park Committee has offered a prize for competition, to be awarded on

June 18, for groups of plants suitable for growing in dwelling-rooms lighted by gas.

It seems not improbable that gas is not the only nor the greatest enemy to plant life. A too dry atmosphere, want of light and efficient ventilation, may be effectual hindrances. If so, the very care used in cultivation may lead to important sanitary results, and to the removal of agencies which are as deleterious to human existence as they are inimical to the vegetable world.

COLLECTIONS OF WILD FLOWERS.

Would it in any way injuriously affect more severe botanical study to compete for the further prize offered for our native wild flowers? Collections are requested of cut specimens gathered from definite areas of five miles' radius around any parish church. Schedules relating to the above, regulations, and all necessary information can be had on application to the secretary.

* *

"CÆSAR" AND THE PRELIMINARY EXAMINATION.

The results of the Preliminary examination, held in January, are now published, and out of 278 candidates 8 only brought up "Virgil" as the Latin subject. That seven of these succeeded in this branch forms an element of consolation; but that 270 youths should have brought up "Cæsar," and should have toiled through the dreariness of a book not one line of which they will ever read to their dying day, from the moment they have passed the Preliminary, and very little of which would be an advantage to them if they did, is a harrowing spectacle. One would have thought that tutors would have been glad to have been delivered from Arioivustus, and the legates and the legions, and from the whole uninteresting lot. Here is Cæsar glozing, finessing, drawing upon his imagination, and painting the lion freely. There are the rest in two main divisions—the conquered, suppliant and weeping; and the conquerors moving heaven and earth *uti Cesari satisfacerent*. So the young pharmacist grows up hating the classics for the sake of one author, extremely difficult to understand, and many of whose parenthetical and complicated sentences perplex the advanced scholar.

The Board of Examiners has yielded to the force of public opinion, and allowed one ray of literature to cheer the gloom. We shall get further as the age progresses, and the day will come when even pharmacy shall not be shut out from those admirable collections of prose and verse extracts which are the delight of our great schools, and which promote at once the study and the love of learning.

* *

Can we wonder at the low rate of intelligence to which the class-list of the Preliminary examination bears witness? More than half of the candidates are unsuccessful. The boys are not to blame; it is the fault of that system of intellectual parsimony which thinks that pharmacists can be fed on Cæsarism and on the monotony of the Gallic War.

We contend now, as we have consistently done for years, that our youth should have a liberal education, so that the entrance test required from those beginning pharmacy should be only a formal sign of ordinary attention to their school duties. Limit them to "Cæsar" and to the Latin of prescriptions, and the formal sign becomes an ordeal which many dread, and more than one-half cannot pass. The whole mental activities are depressed, and they are unable under such discouraging influences to fathom the rule of three; still less the metric system. The Preliminary examination should need no special preparation; and to go through it with success should be the natural outcome of previous training, conducted on broad principles, and pursued with the usual amount of diligence.

DRUGGISTS' SHOW-BOTTLES.

Some outlying minor things pharmaceutical remain veiled in mystery. One of the authors of the *Pharmacographia* regretted that he was unable to trace the origin of the word "taraxaem," and that there was no good explanation of the use of the term "arrowroot." We have been asked at what date, and by whom, and for what reason, did the druggist adopt coloured show-bottles as the symbol of his calling? A long and futile search has been made to glean information on the subject. In all probability the custom was imported from Germany, and the balance of suspicion would indicate Hamburg as the spot. But this is mere conjecture, for not one shadow of positive evidence has transpired, though "Notes and Queries," old books on pharmacy, and other supposed sources of mediæval intelligence have been consulted. Perhaps some reader, more skilful in folk-lore, may come to the rescue and clear the doubt.

The Pharmaceutical Council.

THE Council met on February 6, Mr. Michael Carteighe, President, in the chair. Messrs. Borland and Gostling were the absentees.

The first business was the ballot for

RETIRING MEMBERS

Of Council in May next. The seven names drawn were those of Messrs. Atkins, Borland, Butt, Radley, Robbins, Savage, and Woolley.

The following, who remained in by lot last year, now retire by rotation:—Messrs. Churhill, Gostling, Greenish, Schlacht, Squire, Williams, and Young.

The following remain in office another year:—Messrs. Andrews, Bottle, Carteighe, Hampson, Hills, Richardson, and Symes.

THE REGISTRAR'S REPORT.

The registrar submitted his annual statistics of the numerical strength of the Society, made up to December 31, 1883. These were shown as follows (giving comparison with the past five years):—

	1879	1880	1881	1882	1883
Life members:—					
Pharmaceutical chemists	..	241	237	238	236
Chemists and druggists	..	2	2	2	2
Subscribing members:—					
Pharmaceutical chemists	..	1,742	1,729	1,695	1,646
Chemists and druggists	..	812	803	786	777
Associates in business	..	965	1,025	1,069	1,107
Associates not in business	..	827	840	817	824
Apprentices and students	..	1,071	1,074	1,046	1,037
					1,098

The analysis of examinations for the year 1883 showed that at the Preliminary examinations there had been 1,539 candidates, of whom 770 had passed; that in England and Wales there had been 100 candidates for the Major, of whom 50 had passed; 632 candidates for the Minor, of whom 235 had passed; and nine candidates for the Modified, of whom six had passed. That in Scotland there had been 11 candidates for the Major, of whom 5 had passed; 134 candidates for the Minor, of whom 59 had passed; and one candidate for the Modified, who had passed.

The new registers of pharmaceutical chemists and chemists and druggists showed 2,248 pharmaceutical chemists and 11,417 chemists and druggists, being a total increase of 133.

THE BENEVOLENT FUND

The Committee recommended three grants of 10*l.* each and one of 5*l.* The secretary had spent fifteen out of twenty guineas voted last month to assist in the election of a child to the London Orphan Asylum, and had been successful. The death of Mr. H. E. Davies, an annuitant elected last year, was reported.

The President announced the receipt of the following handsome donations:—

Mr. Buck, Stamford Hill, 10*l.*

Miss Humpage, in memory of her late father, Mr.

Benjamin Humpage, Chiswick, 50*s.*

Mr. Charles Maw, Aldersgate Street, 10*l.*

Mr. C. T. Maw, Aldersgate Street, 2*l.* 5*s.*

The special thanks of the Council were voted to the donors. The report and recommendations of the Committee were adopted.

NEW PREMISES IN EDINBURGH.

The report of the Library, Museum, and House Committee contained a reference to new premises which it was proposed to acquire at Edinburgh, and the President explained the reasons of this acquisition in committee.

THE SOLICITOR'S LETTER

Gave details of the cases in hand. Great difficulty was found in obtaining the evidence required. Two new cases of alleged infringement of the Pharmacy Act were considered, and the solicitor was instructed to take proceedings.

DEPUTATION TO THE PRIVY COUNCIL.

The report of the Law and Parliamentary Committee stated that at their last meeting the provisions of the Bill had been discussed with the President and Vice-President of the Trade Association, and explained. The Secretary had subsequently written to the Association, inviting their Executive to appoint a small deputation to join one from the Council in waiting on the Lord President of the Privy Council. A reply had been received that the matter would be brought before the Executive at their meeting on the 8th inst.

THE EXAMINATIONS.

In January, in Scotland, examinations for the Minor certificate had been held, when, out of 41 candidates, 27 had passed.

At the Preliminary examination, on January 8, besides six certificates received in lieu of the Society's examination, 278 candidates had been examined, of whom 127 had passed.

Mr. HILLS remarked on the extent to which the candidates had failed in arithmetic. He considered it the most important subject of the examination, seeing how requisite it was that prescriptions should be exactly dispensed. He noted that out of 151 failures 65 were due to deficiency in arithmetic.

PHARMACEUTICAL CHEMISTS AND CORONERS' JURIES.

The PRESIDENT alluded to some remarks reported to have been made by a coroner in reference to the exemption of pharmaceutical chemists from service on coroners' juries. The solicitor had since had an interview with the coroner, and it was thought no difficulty would arise. The solicitor's opinion was that pharmaceutical chemists were exempt from service on all juries. The President further stated that coroners did not summon from any jury-list, but they could summon any householder or any person in the street; but the clause exempting pharmaceutical chemists from jury service said that they were exempt from "all inquests whatsoever." It was curious that the exemption of medical men, solicitors, barristers, and others did not extend beyond ordinary juries.

Mr. ANDREWS said he was lately summoned on an inquest, and the coroner told him he did not read the Act in the same way as he (Mr. Andrews) did. He had remained, as a matter of courtesy; but evidently coroners did not consider their courts governed by the same rules as applied to other jury service.

WATERPROOFING LEATHER.—Twenty-four parts oleic acid, 18 ammonia soap, 24 water, 6 raw stearic acid, 3 tannin extract. The oleic acid is first melted with the raw stearine, then the ammonia soap is added, and afterwards the extract, and finally the water. The ammonia soap is obtained by treating oleic acid with ammonia until the smell of the latter does not appear after a lengthy stirring. By adding to the whole mixture a solution of 2 parts copperas in 6 parts of water a deep black colour is obtained, admirably adapted for dyeing shoe-leather.—*Ind. Oil and Drug Jnl.*

Pharmaceutical Society of Ireland.

THE monthly meeting of the Council was held on Jan. 6. Present: the President (Mr. J. E. Brunker, M.A.) in the chair, Mr. H. N. Draper (Vice-President), Messrs. Allen, John Evans, Grindley, Hayes, Hodgson, McIlwaine, Dr. Aquilla Smith, and Professor Tichborne.

A letter was read from Dr. Kaye, Q.C., Clerk to the Privy Council, enclosing an Order of Council confirming the resolution of December 5, 1883, relative to the time to be spent in learning practical pharmacy.

PRESIDENT: The new regulation requiring four years to be spent in the learning of practical pharmacy came into force on January 1 last, and is now law.

A communication was received from the Attorney-General for Ireland, forwarding his replies to the following queries:—Queries submitted to counsel on behalf of the Council of the Pharmaceutical Society of Ireland. The Council have been entrusted with the duty of administering the Pharmacy Act, Ireland (38 & 39 Vic., ch. 57), and have been empowered to make regulations, which, subject to the approval of the Lord-Lieutenant and Privy Council (section 17), have the force of law. The Council have found difficulty in considering the legal interpretation of the term "person keeping open shop"—how far it may extend or how it may be limited (*vide* section 30).

On this point counsel's opinion is sought. The following case now before the Council illustrates the difficulty. Candidates presenting themselves for the licence of the Society must produce certain certificates from a pharmaceutical chemist or apothecary keeping open shop (*vide* p. 55 of the Society's Calendar). A Mr. Hardy, a licentiate of the Society, seeks for recognition of his certificates under this regulation, but under the circumstances detailed below. A firm named Beater & Co., carrying on business at 17 Lower Sackville Street, as "general druggists," have entered into an arrangement with Mr. Hardy, who is one of the partners of that firm, under which he rents from the firm a portion of the premises in which the general drug business is carried on, as a compounding department. It appears that the profits of the compounding department are exclusively enjoyed by Mr. Hardy; but it also appears that the department is only a portion of the general business shop, and that there is a common entrance to both, the name on the door being "Beater & Co." The case in question is a comparatively unimportant one, but will govern others which may arise. Counsel will please advise.

1. Whether the singular "person" can be held to imply and include "persons" under the Irish Pharmacy Act, or if there is any general interpreting Act in the Irish statutes affecting the point. Counsel's attention is directed to an English case, The Pharmaceutical Society of Great Britain v. The London Supply Association, 5th Q. B. D., p. 310, which was finally adjudicated on in the House of Lords. It is necessary to keep in mind that the Irish Act, though closely following the Pharmacy Act, Great Britain, 1868, is not, owing to antecedent circumstances, on all fours with it. In Great Britain any person, before the passing of the Pharmacy Act, could compound physicians' prescriptions; while in Ireland the right to compound prescriptions, formerly enjoyed by apothecaries only, is now extended to licentiates of the Pharmaceutical Society, and to no others.

2. Can physicians' prescriptions be legally compounded in Ireland by a firm of whom one or more members are not qualified pharmacists, or does the licence only extend to the individual licensee who conducts his business on his own premises and for his own profit?

3. Can a firm in general business or co-operative society conduct a dispensing department under the management of a qualified pharmacist within their own premises, even though such qualified manager is the ostensible owner of said department?

4. Can Mr. Hardy, in the case specially referred to, be regarded as a pharmaceutical chemist legally keeping open shop in the terms of the Society's regulations referred to?

Opinion.—Having regard to the Statute 13 and 14 Victoria, chap. 21, sec. 4, words in the singular used in a statute include the plural, and therefore "person" includes "persons." As regards Mr. Hardy's case, having regard to the fact that he is the sole proprietor, as I understand, of the dispensing portion of the business, I think he may be fairly regarded as "keeping open shop" within the meaning of the regulation at page 55 of the Calendar.

As regards the second question in the case, in my opinion, if a firm, not being an incorporated company, consists of persons some of whom are not properly qualified pharmacists, such firm cannot legally compound prescriptions. In such case the licence granted only extends to the person to whom it is granted, so as to authorise him to conduct business on his own premises.

As regards the third question in the case, I assume it refers to the case of firms or societies incorporated under the Companies Acts or otherwise. As regards such companies, having regard to the decision of the House of Lords in the case of The Pharmaceutical Society v. The London and Provincial Supply Association (Limited), Fifth Appeal Cases, p. 857, they may keep and conduct a dispensing department, provided the person actually managing and conducting such department is himself a properly qualified pharmacist.

Reply to fourth query, as to Mr. Hardy: I think he can.

PRESIDENT: This reply is in some respects a rather serious thing for the Society, and shows the necessity for pressing for an amendment of the law. It appears to be an extraordinary anomaly that Brown, Jones, or Robinson, if they form an incorporated society, can do what none of them individually can do by himself.

Mr. DRAPER: It is a *reductio ad absurdum*.

Dr. AQUILLA SMITH: The whole thing amounts to an evasion of the Act of Parliament.

Mr. HAYES: I suppose Sir John Arnott & Co. could set up a dispensing establishment in their house.

Mr. DRAPER: They could, because they are a limited liability company.

PRESIDENT: Among the proposed amendments in the Act we have propositions touching this very point. The English Society have in their draft Bill a similar clause, which, it is to be hoped, will be passed into law.

It was resolved, on the motion of Mr. HAYES, seconded by Mr. EVANS,

That a copy of the case and replies be sent to Mr. Hardy.

The next business was the consideration of a report from a deputation which had recently waited on the Chief Secretary for Ireland in reference to the amendment of the Pharmacy Act.

The **PRESIDENT** said they might take the report which appeared in the *Freeman's Journal* of what occurred at the deputation, as it appeared to be the most accurate. All who attended the deputation must have been pleased at the favourable reception which they got from Mr. Trevelyan. He appeared to have gone thoroughly into the question, and took up the points that were presented to him at once. He (President) had not expected that before they left the room they should have received what was tantamount to a pledge that, as far as possible, what they asked for would be carried out. The Chief Secretary asked them to put in writing exactly what they wanted, and the sooner that was done the better. He (President) had drafted the heads that had already been agreed on by the Council, and had written to the President of the English Society, asking for a copy of the Bill which his Council were promoting, in order that the two Societies might, as far as possible, work on the same lines. If Government should bring in Bills for the two countries at the same time, it was probable that the two Bills would be identical in some points. It was desirable to have a meeting of the Pharmacy Act Amendment Committee as soon as possible, in order to prepare the written statement for which Mr. Trevelyan had asked; and it was also advisable that that statement, when agreed upon by the Council, should be printed and copies of it sent to the Irish members of Parliament.

Professor TICHBORNE said it would be very wrong to force a Bill through Parliament without consulting and getting the opinions of the members of the Society generally. The Council would not be bound to follow out whatever might be

agreed to at a general meeting; but they were bound to place not only their own opinions, but those of members of the Society generally, before the Chief Secretary.

On the motion of Mr. ALLEN, seconded by Mr. MCILWAINE, it was resolved that the Pharmacy Act Amendment Committee be requested to draw up, for the information of the Chief Secretary for Ireland, a *résumé* of the views of the Council as to the amendment of the present Pharmacy Laws.

Mr. John Armstedt Ray, of 15 Nassau Street, Dublin, was elected a member of the Society.

Mr. HODGSON made a financial statement, the effect of which was that 160*l.* worth of stock had been sold out to meet the expense of fitting out the Society's new premises; that 128*l.* had been expended, and that one bill remained unfurnished, the amount of which would probably not exceed 30*l.*

The following gentlemen passed the examination for the licence as pharmaceutical chemist held on January 2 and 3:—James Guiler, 25 High Street, Belfast; William James H. Madden, Circular Road, Dublin; David Stranaghan, 141 York Street, Belfast.

Chemists and Druggists' Trade Association of Great Britain.

MEETING of the Executive Committee, held at the office of the Association, 23 Burlington Chambers, New Street, Birmingham, on Friday, February 8, at 12.45 P.M.

Mr. John Harrison (Sunderland), President, in the chair.
Mr. W. G. Cross (Shrewsbury), Vice-President.

Present:—Messrs. Andrews (London), Arblaster (Birmingham), Barclay (Birmingham), Chapman (Scarborough), Churchill (Birmingham), Hampson (London), Holdsworth (Birmingham), Jervis (Sheffield), Jones (Llanrwst), Mackenzie (Edinburgh), Mason (Liverpool), Parker (Nottingham), Paterson (Aberdeen), Southall (Birmingham), Symes (Liverpool), Williams (Manchester), Yeadall (Leeds), and the Solicitor of the Association.

Communications were read from Messrs. Bell, Laird, and Walker regretting their inability to attend.

The minutes of the previous meeting of the Executive were read and confirmed.

The SECRETARY said that, in accordance with the instructions of the Executive, he had made arrangements for a deputation from the Association to wait upon the Commissioners of Inland Revenue at Somerset House for the purpose of urging upon them the advisability of issuing an order making it compulsory on Excise officers, when purchasing spirit for analysis, to leave with the seller a portion of the spirit sold. That the interview took place on September 25 last, and that the following order had subsequently been made:—

General Order.

Inland Revenue Office,
Somerset House, London, W.C.,
November 1, 1883.

Ordered—

That the attention of the Service be directed to the following matters:—
1. Samples of methylated spirits or finish. Officers purchasing samples of methylated finish or methylated spirit from persons not licensed to retail methylated spirit are to obtain not less than 1½ pint, and this quantity is, in the presence of the trader, to be divided into three equal portions, in accordance with the general instructions on the subject of samples. Sound corks are to be used and tied down with string, the knot being placed in a notch on the top of the cork, and sealed. One of the subdivided samples to be offered to the trader (who should be informed that a sample will be tested as to the amount of resin, if any, dissolved therein), and a second is to be retained by the purchasing officer, and the remaining sample is to be sent at once to the laboratory for analysis.

Any such purchase is to be reported without delay, in order that the trader may receive early notice of any offence against the law.

(Signed) CHAS. B. FORSEY.

The report of the Finance Committee was then read and adopted.

The Secretary was instructed to prepare a statement

showing the cases of prosecution and defence in which the Association had taken part since its formation in 1876, together with the total expenditure during the same period, and to issue a print of the same with the annual report in May next, accompanied by a circular appealing for additional support for the Association.

The PRESIDENT said that at the last meeting of the Executive a deputation was appointed to wait upon the Pharmaceutical Council in reference to the proposed amendments of the Pharmacy Act; that the interview had taken place on November 6 last, and that the proceedings, at the request of the President of the Pharmaceutical Society, were not reported. At that interview a long discussion took place on the amendments proposed by the Executive of the Association to the draft Pharmacy Bill prepared by the Pharmaceutical Council, when it was ascertained that the Council had already settled the lines of the measure with the Privy Council. Since that time he and the Vice-President had, at the request of the President of the Pharmaceutical Society, again waited upon the Law and Parliamentary Committee of that body in reference to the matter, and a communication had been received from the Society which the Secretary would now read. The Secretary then read the following letter, which, he stated, he had acknowledged, with an intimation that it should be laid before the Executive at their meeting that day:—

Pharmaceutical Society of Great Britain,
17 Bloomsbury Square, London, W.C.,
January 24, 1884.

The Secretary,
Chemists and Druggists' Trade
Association of Great Britain, Birmingham.

DEAR SIR,—It has been decided by the Council that it is desirable to ask the Privy Council to receive a deputation to urge the importance of introducing a Bill to amend the Pharmacy Act this session.

With reference thereto, I am instructed to invite the Executive Committee of your Association to appoint a small deputation to accompany a deputation from the Council of this Society, and possibly others, to the Lord President of the Privy Council in support of legislation on the basis of the Bill now in the hands of the Government.

I am,
Yours faithfully,
(Signed) ELIAS BREMIDGE,
Secretary and Registrar.

After a very long and full discussion the following resolutions were passed:—

That a small deputation be appointed to accompany a deputation from the Council of the Pharmaceutical Society to the Lord President of the Privy Council in support of legislation on the general basis of the Bill to amend the Pharmacy Act now in the hands of the Government.

That the deputation consist of the President, Vice-President, Mr. Barclay, and the Secretary.

That the officers of the Association, together with Messrs. Arblaster, Barclay, Hampson, and Holdsworth, be appointed a Committee to watch the progress of the Bill to amend the Pharmacy Act Amendment Bill in its passage through the Legislature.

It was moved by Mr. MACKENZIE, seconded by Mr. CHAPMAN, and unanimously resolved—

That the eighth annual general meeting of the members of the Association be held in London on Tuesday, the 20th of May next, and that the arrangements for the same be left in the hands of the London Committee.

Mr. JERVIS gave notice that at the next annual meeting he intended to bring forward a resolution purporting to amend Rule 6, so that for the future the officers of the Association should be elected by and from the Executive Committee, instead of by the annual meeting as heretofore. He said he thought that it was very advisable that the annual meeting should elect the Executive Committee, but in his opinion the Executive should be permitted to elect their own officers.

It was moved by Mr. ANDREWS, seconded by Mr. CHAPMAN, and unanimously resolved—

That Mr. J. C. Armfield be appointed local secretary to the Association for Ashton-under-Lyne and district, vice Mr. William Bostock resigned; and that Mr. Newby be appointed local secretary to the Association for Truro and district, vice Mr. Serpell resigned.

A communication was read from Mr. Pipe, of 1 King's College Road, London, N.W., enclosing a donation of a guinea to the funds of the Association, and thanking the Executive for defending him in the action under the Sale of Food and Drugs Act, recently brought against him by the parish authorities, and adding that he had learned by the unfortunate position in which he was placed at that time that the Association should receive the full support of the trade.

A communication was also read from Mr. Sidney Allchin, of England Lane, London, N.W., thanking the Association for assistance rendered at the same time in reference to a similar prosecution, and enclosing a donation of five guineas towards the funds of the Association.

The PRESIDENT called attention to the retirement of Mr. A. H. Mason from the Executive Committee, as he was now about to leave this country for Canada. Mr. Mason, he said, had been a most valuable member of the Committee, and he could bear testimony to other important services rendered by that gentleman, and he would move—

That the Executive of the Chemists and Druggists' Trade Association desire to record their sense of the valuable assistance rendered by Mr. Mason, and to express their sincere hope for his welfare in the distant country to which he is about to go.

The resolution was seconded by Mr. ARBLASTER, supported by the VICE-PRESIDENT and Messrs. BARCLAY and SYMES, and carried unanimously.

Several letters were read from members of the Association, and instructions given to the Secretary as to the manner in which he should deal with the same.

Metropolitan Reports.

ACCIDENT IN THE GALE.—During the violent gale which visited the country on January 26 a large plate-glass window in the shop of Messrs. Ord, Smith & Co., Ludgate Hill Station, was blown in, and carried with it a huge carboy of coloured water, the destruction of which caused considerable additional damage in the shop.

MORE DRUG ROBBERIES.—George Farrah, porter to Messrs. Burgoyne & Co., was charged at the Guildhall, on February 7, with stealing a quantity of medicines belonging to his employers; and William Toomey, *alias* Thompson, general dealer, and Walter Barter, commission agent, were charged with receiving the stolen goods with a guilty knowledge. The prisoners were remanded.

DEATH FROM CHLORAL.—An inquest was held in January at the City mortuary, Golden Lane, by Mr. Payne, on the body of Joseph W. Ward, described as a medical practitioner, who was found dead in bed one morning, and whose death was shown by the medical evidence to have been produced by chloral. There seems to have been no motive for suicide in the case, but the deceased appears to have been accustomed to take chloral to procure sleep, and probably inadvertently administered to himself an overdose of the drug. The verdict was "Death from misadventure."

S. MAW, SON & THOMPSON'S CRICKET CLUB.—The members of the S.M.S. & T.C.C. held their annual dinner at the Holborn Restaurant on the evening of January 25. About sixty gentlemen (including a few invited guests) assembled round the tables. Mr. John Banks presided, and Mr. Joseph Holdsworth occupied the vice-chair. After "The Queen" and "The Firm" had been toasted, the Chairman proposed "Success to the Club," which was responded to by Mr. R. Leng, the honorary secretary, who said the club had played 20 matches last summer, of which they had won 5, lost 7, the rest being left undecided. A bat was then presented to Mr. Jordan for the best batting average; a travelling-bag to Mr. Birmingham for the best bowling average; and a pair of cricketing-shoes to Mr. C. Jones, the captain, for the highest single score in the season (59). Other speeches and a number of songs filled up the evening.

Provincial Reports.

BIRMINGHAM.

MIDLAND COUNTIES' CHEMISTS' ASSOCIATION.—The thirteenth annual soirée in connection with the Midland Counties' Chemists' Association was held on January 25 in Birmingham Town Hall, and from every point of view was the most successful gathering which the Society has held. There were 390 ladies and gentlemen present, including nearly all the leading chemists of the town and district. Early in the evening there was a promenade concert, during which Mr. Stimpson gave an organ recital, and Messrs. Synder & Gilmer's band performed a selection of music. Later dancing was commenced, and was continued until an early hour on Saturday morning, Mr. E. J. Reynolds carrying out the duties of the M.C. to the satisfaction of the company present. The hall was tastefully decorated by Messrs. Manton & Sons; the plants, of which there was a profusion, coming from Mr. Vertegan's nursery. Very tastefully-printed programmes were supplied free by Messrs. White & Pike. Everything passed off in a manner highly creditable to Mr. Charles Thompson, who, as honorary secretary, had the arrangements of the soirée entrusted to his supervision. The success of the soirée has induced the committee to arrange for a dinner, which is to come off shortly.

DRUG THEFTS.—At the Birmingham Police Court lately, and finally at the recent Warwick Sessions, several prisoners have been convicted of a long series of thefts from the premises of Messrs. Philip Harris & Co. The prisoners originally charged were Edwin Alfred Perryman, 41, laboratory man; George Sanders, 35, warehouse porter; and Josiah Harrison, 42, laboratory man; all in the employment of Mr. Arthur Heeley and Mr. T. Jeavons Aston, trading as "John Philip Harris & Co." wholesale and manufacturing chemists. These were charged with stealing a large quantity of goods, comprising canary seed, sugar, carbolic acid, castor oil, cream of tartar, nutmegs, ginger, camomile, &c.; and Joseph Walker, 58, pin-pointer, 22 Bartholomew Street, and his wife, Emma, 56, were charged with receiving the goods, knowing them to have been stolen. For some time past goods had been missed from the premises, but it was found difficult to ascertain who took them. In November last the case was entrusted to Detective-inspector Van Helden and Sergeants Bird and Price, who succeeded in "spotting" the men who were stealing the goods, and ultimately the houses of Perryman and Harrison were searched. This was on December 21. Previous to this Mr. Robinson, the laboratory manager, who was watching Perryman, looked into a basket which Perryman carried backward and forward, presumably with his luncheon. On December 1 he saw in it 4 lbs. of canary seed, on December 6, 7 lbs. of grain sugar; on December 13, a pint bottle of tartaric acid; on December 19, 10 lbs. of sugar, and on December 20, 1 lb. of tapioca. When the houses were searched a large quantity of the missing goods, including a pint bottle of quinine wine, was found in Harrison's house. Harrison was also watched, and a bottle of cough mixture was missed on December 5. The next day it was found at his house, together with a pint bottle of quinine, missed on the 4th instant, and a large quantity of chemicals. The case against Sanders was much more serious than against Perryman or Harrison. There was no doubt that he had been robbing his employers for over three years, and that he had been selling the goods. In the course of their investigation the police received from a warehouseman of Messrs. Harris, named Murray, 7 lbs. of nutmegs. These were half of a quantity that had been received from London on November 28. Van Helden branded them all with a small letter "S," and they were returned to Murray, who placed them in stock with the others. He weighed the whole quantity every day up till December 17, when Mr. Aston sent Sanders for 1 lb. of them. When Murray weighed the remainder the same evening there was a deficiency of 1 lb. 12 oz., and on the 20th inst. there was a further deficiency, including the 1 lb. Mr. Aston had sent for, of 3 lbs. 4 oz. On the same evening Murray missed two Winchester quarts of castor oil from fifteen that had been counted, the bottles having been marked with a diamond inside the neck. The following day another employé of Messrs. Harris, named

Marlow, went to a small fish-shop kept by Walker and his wife in Bartholomew Street, and purchased, amongst other things, 2 lbs. of castor oil, one Winchester quart of castor oil, one of sweet nitre, an 8-lb. parcel of cream of tartar, a quantity of which had also been missed, and which was made up in 8-lb. bags, a half-gallon bottle of oil of almonds, and a great quantity of other drugs and chemicals. The quarts and bottles were all identified by Murray as marked by him.

At the request of the prosecutors the magistrate dealt summarily with the case of Perryman and Harrison, who both pleaded guilty to specific charges. Perryman was thereupon sentenced to imprisonment for two months and Harrison for three months.

Sanders and Walker were committed for trial after evidence against them had been taken.

When Sanders was arrested he said, "It is no use denying it; I am very sorry. It is Walker's fault; he has been after me for a long time at meal-times. He is always following me about, and his wife is just the same." Walker and his wife had been arrested earlier in the day, and had refused to say anything. When confronted with Sanders, Walker admitted having had the goods from him, but said he did not know they were stolen. He got them from Sanders because he knew Sanders could get them cheaper than he.

At the sessions Sanders was sentenced to nine months' imprisonment and Joseph Walker to five years' penal servitude. The female prisoner was discharged.

EDINBURGH.

CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION. An open meeting of this Association was held in the Pharmaceutical Society's Rooms, Edinburgh, on the evening of January 9, Mr. Claude F. Henry, President, in the chair. Two papers were read by apprentice-members—one on "**The Shale Products Industry**," by Mr. Thomas Stephenson; and another on "**Cod-liver Oil**," by Mr. A. Robbie. Both subjects were treated lucidly, and were aptly illustrated by collections of specimens, the former paper being further illustrated by well-executed plans of working-plant. In the course of this paper Mr. Stephenson mentioned that in the process as carried on at the Oakbank Oil-works, Midcalder, the greater proportion of profit is derived from the bye-product ammonia. This is so valuable nowadays that the manufacturers contemplate the recovery also of ammonia from the coal used as fuel. They propose treating the coal in Young & Beilby's patent retorts, so as to produce coal-gas, which, along with uncondensable gas from shale, is to be used as fuel. At a certain stage of the process superheated steam in large excess is passed into the retort, a portion of the steam is decomposed, carbon taking oxygen, and hydrogen combining with nitrogen to form ammonia. The excess steam protects this ammonia, and carries it away to vats of sulphuric acid. It is calculated that 7s. 6d. worth of ammonium sulphate may be obtained from 3s. or 4s. worth of coal, thus yielding profit to the manufacturers where formerly they had loss. The influence of this new source of ammonia on Le Blanc's soda process was fully brought out in the discussion which followed the paper, the opinion being expressed that the last drawback to the ammonia-soda process has been removed.

The Association met again on January 30, when Mr. John R. Hill read a paper on "**The Chemistry and Preparation of the Official Alkaloids**." Considering alkaloids as a part of the great discoveries of the nineteenth century, the author prefaced his paper with a chronological account of those which are now official, beginning with morphia, discovered in 1816 by Sertürner, who termed it "a new salifiable base; morphinur, one of the most remarkable substances, and apparently related to ammonia." This relation to ammonia was lucidly shown by means of graphic formulae, and it gave the essayist an opportunity for remarks on recent work directed to the artificial formation of alkaloids. After a *résumé* of general alkaloidal reactions, the preparation and chemistry of the official alkaloids were treated of, full illustration being given by means of experiments. The President moved a vote of thanks to Mr. Hill, which was seconded by Mr. MacEwan, and heartily responded to by the meeting. In the course of a discussion which followed, it was suggested that the Association should annually publish a report of its transactions; the suggestion was favourably received, and the President intimated that it would be considered by the Executive. Thereafter several queries were submitted and replied to, after which the meeting adjourned.

MANCHESTER.

"INDIAN TINCTURE."—An inquest on a lad named Samuel Yates, living at Moss Bank, near St. Helens, was concluded at the Victoria Hotel, Moss Bank, on January 28, before Mr. W. Hardy, deputy coroner for the Salford Hundred. The deceased was taken ill the previous Friday week, when his mother went to a neighbouring grocer, named Ashall, and purchased threepennyworth of what is generally known among the villagers as "Indian brandy," a mixture supplied by a Mr. Riley, of Dumbhill, near Bolton. Although the doses for children and adults were on a printed label gummed on the bottle from which the mixture was served, the mother, in her ignorance, gave the deceased the whole of the ounce of stuff she had purchased, instead of dividing it into three or four portions. She thought it would make the poor child sleep, as she said, and in this she was not mistaken, for almost immediately after the compound was administered to him he dropped into a slumber from which he never woke, his death taking place in a few hours. A post-mortem examination had been made, and the contents of the stomach, as well as the contents of the bottle labelled "Indian tincture," had been analysed by Dr. J. Campbell Brown, who had detected in the stomach a small quantity of alcohol, and some resinous substance which it was quite impossible to identify. No opium was present, and there was no trace of any ordinary poison. In the contents of the bottle he found about 30 per cent. of its volume ordinary methylated spirit of wine, a small quantity of ether, and a very large proportion of sugar. It also contained two resins—one derived apparently from capsicum or cayenne pepper. The weight of the two resins taken together was only 0.012 per cent. The smaller quantity of resin was not capable of being identified by any chemical means, and he believed the only way in which the properties might be properly determined would be by making experiments on living animals, which he was prohibited by law from doing. He could, therefore, only conjecture that the resin might be derived from *Cannabis Indica*, a substance which produces symptoms similar to those which had been described as resulting from the effects of the tincture in question. The jury returned a verdict that the deceased died from the effects of an over-dose of "Indian tincture," administered to him in ignorance by his mother as a medicine. They also censured the grocer, Mr. Ashall, who supplied her with the compound in question, for not reading to her the respective doses printed on the label, and added a presentment that in their opinion shopkeepers ought to be positively prohibited by law from selling "Indian tincture" and such-like compounds, and that if the laws of the Inland Revenue had been in any way infringed by the sale of the mixture in question the authorities ought to take cognisance of it.

A PRESCRIBING CHEMIST.—At an inquest held on February 1, before Mr. S. Smelt, the deputy city coroner, on a child, aged nine months, son of Jonathan Price, Harpurhey, it appeared that the mother had obtained some medicine for the child, who was suffering from convulsions, from Mr. Jackson, a chemist in Rochdale Road. Mr. Jackson afterwards called, and said the child was suffering from convulsions and inflammation of the lungs, and prescribed for these complaints. She would not have employed Jackson if she had not thought he was a duly qualified man. Death ensued on January 29. George Jackson, 870 Rochdale Road, Harpurhey, chemist, said he was not qualified as a medical man. He was in practice before the Medical Act was passed. When he saw the deceased it was suffering from convulsions and slight bronchitis, but the latter afterwards abated. He treated it for these. It was impossible to save the deceased, for it was suffering from effusion on the brain, which was the cause of death. In answer to the Deputy-Coroner, the witness said that a Mrs. Whittaker was present at the post-mortem examination of the body. Mrs. Whittaker had been to see him since the examination, and it was after her visit that he wrote out the list of ailments, which list he produced, and from which the deceased was suffering. He had given certificates of death before on forms which he had had printed for the purpose. A post-mortem examination had been made by Dr. A. Emrys-Jones, who found that the deceased had been suffering from an abdominal affection. The heart and lungs were quite healthy. The brain was suffering from effusion. Jackson's diagnosis was entirely

wrong. Dr. Emrys-Jones thought that the child might have lived if it had had proper treatment. He did not think Jackson's treatment would do either good or harm. Death was due to the disease of the brain. Jackson's statement that his mixtures would affect the effusion was based on an entirely imaginary foundation. Mr. Smelt said that Jackson had been four years ago censured by a coroner's jury for attending a patient, and not long ago Mr. F. Price, the district coroner, censured him. The jury returned a verdict of "Death from natural causes," and censured Jackson for attending the deceased, for not calling in a medical man, and for giving a certificate.

MARGATE.

THE LAUDANUM TRADE. — At the Police Court, on January 21, a man named James Adams was committed for trial on a charge of attempted suicide. The man seems to have gone first to Mr. Arthur Compton, 1 High Street, where he bought twopennyworth of laudanum. He had a spirit-bottle holding from half a pint to a pint. Asked what it was for, he said, "Diarrhoea." He further said he had taken it for years, generally a few drops in rice-water. Mr. Compton put on the bottle a label bearing the words, "Laudanum; poison." After having obtained possession of the bottle prisoner asked, "I suppose this will not hurt me if I take the lot?" Mr. Compton expressed surprise, and said, "Of course it would;" still he understood at the time that he was very bad, and would require a large dose. He told him not to take more than a quarter of it, and repeated this warning to him two or three times. Next Adams obtained 1 drachm as a pennyworth at the shop of Mr. W. S. Harvey, Market Place, borrowing a bottle there. Mr. Harvey asked the prisoner if he knew how to use the laudanum, and he said he did, adding that he had often taken it for dysentery. Lastly, he bought twopennyworth at the shop of Mr. Cadby, High Street, saying he required it for dysentery. Mr. Cadby warned him not to take the whole of it at once, whereupon the prisoner said he could take a tablespoonful at a dose. The prisoner seems to have announced his intention of committing suicide to two policemen, and to some relatives, but the evidence of his having actually taken any of the laudanum did not seem very conclusive. Any way, it did not seem to have hurt him. Before committing the prisoner, however, the Chairman of the Magistrates (Mr. Keble) recalled Mr. Compton, and told him he did not know before that persons who were disposed to take their life could do it so easily through chemists, and he read the law on the subject of dispensing poisons as it related to chemists.

Mr. Compton said there were poisons which chemists could dispense without entering any name in a book.

The Chairman asked if laudanum was one.

Mr. Compton said it was. On being questioned with regard to his statement in evidence that chemists could sell any amount to any persons, he said that was his opinion.

In the course of some further remarks which took place between the Bench and Mr. Compton, the latter said that chemists took more care than they need do in supplying laudanum. They were not bound to take care at all. All they had to do was to supply what was required and label it.

Alderman Pickering: I have always been under the impression that there is a limit, and, if not, there ought to be.

The Chairman, in reply to Mr. Compton, observed that in what had been said by the Bench there was not the slightest reflection upon him.

OLDHAM.

CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.

THE meeting of the Association was held on February 7, Mr. A. E. Martin, President, in the chair.

The Secretary reported that the Society was in a prosperous condition, and the classes well attended. A portion of study is given for preparation at home each week, and practical chemistry is worked by the members at the meetings.

The Treasurer showed that the Society was in a position to pay its way, as, after all expenses had been paid, there was a fair balance in hand.

The President delivered an address in which he congratulated the members on the success of their efforts to make the Association self-supporting. In the past session, for the first time, they had been represented at the annual meeting of the

British Pharmaceutical Conference. He hoped this would form a precedent for future years, and he also urged the members to the extent of their ability to forward the onward march of pharmacy. There are some subjects quite in the province of willing students, such as the best excipients for P. B. pills, the most satisfactory basis for ointments, or some such subject as the deposit in tr. quiniae co. In these cases they could all work together, each taking one particular section of the subject, make himself master of that, and report his results to a general committee who could tabulate the whole, and thus a quantity of useful information could be collected that would doubtless be of general use. There were other ways in which Associations such as theirs might be useful to the pharmaceutical body—for instance, the local papers which contain items useful or interesting to chemists might be sent to the trade journals, for they could not be expected to hear of everything that occurs. And thus inquests, cases of malicious or accidental poisoning, and the doings of illegal druggists, or of those of our own body who disgrace us, would have the full benefit of publicity—a thing too often wanting. As to the future of the chemists of this country, he, for one, took no gloomy view of the situation, for he believed that at present we are in a state of evolution, and that the fit will survive and the weakest go to the wall. It is bad for the weak ones, no doubt, but good for society at large. The title of "chemist" will be all the brighter and more respected when evolution has obliterated that dreary type of druggist—the huxtering, rule-of-thumb man, whose highest aim in life was a cheap thing in hair-oil or glue, who fixed his simple faith on the gum-bottle or extract of gentian as an excipient for pills, and who dispensed a mixture, when he got one, on the happy-go-lucky plan of dropping the ingredients in a bottle, filling up with water, and letting them take their chance. The chemist of the future will be a chemist in more than name—an enlightened, educated man, respected by the medical profession, and enlivening new fields of enterprise brought to light through increased knowledge.

NOTTINGHAM.

THE NOTTINGHAM AND NOTTS CHEMISTS' ASSOCIATION.

THE annual dinner of this Society took place last month, when about sixty members assembled, Mr. Councillor Fitzhugh, F.C.S., presiding, and the vice-chairs being occupied by Mr. J. Wilford and Mr. T. B. Fletcher. Amongst others present were representatives of Messrs. Burgoyne & Co., Messrs. Hearon, Squire & Co., and Messrs. Harvey & Newman, of London. The hon. sec. (Mr. C. A. Bolton) announced donations towards the funds of the Society from—

	£ s. d.
Mr. E. Harvey (Barron, Harvey & Co.)	5 5 0
Messrs. Hearon & Co. (per Mr. Rogerson)	5 5 0
Mr. R. Gibson, Manchester	1 1 0
Mr. Alderman Witty, Hull	1 1 0
Mr. J. S. Osborne	1 1 0
Messrs. Burgoyne & Co.	1 1 0
Mr. Councillor Lees	1 1 0
Mr. H. C. Mason	0 5 0

Among the speeches made in the course of the evening, Professor Clowes proposed "Success to the Nottingham and Notts Chemists' Association." He hoped they would not think him too personal when he said that he was determined to make his department in the college useful, and therefore he had given a course of lectures which he thought were suited to the requirements of those attending them. Chemists dealt in articles which ought to be pure, and it was extremely desirable that they should possess the confidence of the public. It was necessary that they should have some special education in order to perform their duties properly, and therefore he thought it was absolutely necessary that education should be given at the University College which would be of practical importance. He would be glad to receive any suggestions from the chemists regarding the instructions given in his own department. Being a public college, it was necessary that it should do the work of the town. He thought the time had arrived when young men should be able gradually to receive such an education in Nottingham as would qualify them to pass at least their Minor examinations.

The Chairman agreed with Professor Clowes, but, being a Conservative, he believed in advancing by degrees. He

hoped they would get an amended Act of Parliament making Nottingham a centre, so that young men would not have to go to London to pass their Minor examinations.

During the evening the annual collection for the Benevolent Fund was made, amounting to 5*l.* 5*s.*

NEWTON ABBOT.

UNREGISTERED SALE OF PRUSSIC ACID.—At Newton Abbot Petty Sessions, on January 22, J. H. Bibbings, pharmaceutical chemist, pleaded guilty to a charge of selling prussic acid to a lady without obtaining her signature. The customer, Mrs. Jane Finsent, obtained the drug about a fortnight previously, on the plea that she was going to kill a dog, but on the following day she poisoned herself. The defendant, who expressed regret for what had occurred, was fined 2*l.*

RAMSEY.

ACCIDENTALLY POISONED.—Mr. Thomas Reynolds, a retired manufacturer from Leeds, was accidentally poisoned at his residence at Ramsey, Isle of Man, on January 24. He was under medical treatment for an attack of gout, and, instead of calling his nurse, got out of bed to take a dose of medicine, when he took by mistake a wineglassful of a liniment composed of aconite, chloroform, and opium, that was on the dressing-table. Medical assistance was called, but he died in about two hours. A verdict of "Accidental Death" was returned at the inquest.

ROCHDALE.

FIRE.—On the evening of February 7 an alarming fire broke out in the front shop of Mr. Arthur Mason, chemist, Yorkshire Street. Mr. Mason was in the act of filling the hop-bottle from an earthenware jar of turpentine, when a string attached to the handle gave way, the jar was broken, and the inflammable liquid, being thrown in all directions, took fire at a lighted candle which had been placed some distance off. Mr. Mason, with admirable presence of mind, closed both doors of the shop, and with the help of two neighbours and the market inspector succeeded, with buckets of water carried from the cellar below, into which the blazing turpentine was dripping, in getting the fire under control before the arrival of the brigade. The greater part of the contents of the front shop was destroyed or damaged by smoke, most of the glass being broken with the intense heat. Two 10*l.* notes lying on the counter were destroyed, and damage in all to the extent of 450*l.* was done. Mr. Mason himself was not injured. The damage is partially covered by insurance.

SHEFFIELD.

A MELANCHOLY POISONING CASE.—Mr. George Wragg, Cottingham Street, Attercliffe, who occupied a responsible position in the cutlery firm of George Wostenholm & Son, Washington Works, Sheffield, died under most distressing circumstances on January 25. He was a severe sufferer from dyspepsia, for which he took certain medicine. His mother, aged 70, with whom he lived, gave him the usual quantity from what she supposed was the medicine bottle. Immediately her son was seized with violent pains in the throat and stomach, and, though medical help was instantly obtained, he died in an hour. It afterwards transpired that Mrs. Wragg, misled by the similarity of the two bottles, had administered to her son strong ammonia, which had been purchased for cleaning clothes. The poor old lady is almost heartbroken by this sad misadventure.

WORCESTER.

SELLING PRUSSIC ACID.

An inquest was held in Worcester by Mr. R. T. Rea, City coroner, on January 24, concerning the death of Eliza Ross, aged 40, and her child aged 6. It appeared that the deceased had been living apart from her husband and had been much distressed in consequence of not being allowed to have access to her children. On the day of her death she fetched the deceased child from school and the two were afterwards found dead together.

Mr. William Morris, chemist, Lowesmoor, said he had sold 2*p.* worth of prussic acid to the deceased; he gave her drachms. He observed the usual requirements of the law in selling the poison, and received from deceased the name of Mrs. Jones, Carden Street.

In answer to the Coroner, witness said he knew deceased, but did not know her name; she appeared calm, collected, and reasonable.

Witness asked her if she knew prussic acid was a powerful poison. She said "No." He asked her what she wanted it for. She said a friend had told her it was an excellent thing to clean with. He suggested that she should use some salts of lemon instead. She said, "I have tried that, and it has not answered." He then produced his book, and said she would have to sign her name and address. Deceased said, "I have no objection to sign; I have done the same in purchasing mice poison at other shops." Whilst she was signing the book, which she did very slowly, witness said, "I ran over the probabilities of the case, and as deceased had before bought laudanum of me, and had made no improper use of it to my knowledge, I considered it a *bona-fide* purchase, and I let her have the prussic acid. Deceased received it in the bottle in which she had previously purchased laudanum."

Witness produced his register of the sale of poisons, and showed that the sale in question was attested by the name and address of the purchaser, the quantity and nature of the poison sold, and the purpose for which it was bought. There was, however, no signature in the space provided for the person introducing the purchaser, and Mr. Power, who was present throughout the inquiry, pointed out that the sale was therefore not in accordance with the statute.

Mr. Morris said he did not consider any introduction necessary in this case, as deceased was an old customer.

After hearing other evidence, the jury found a verdict "That the deceased committed suicide whilst in a state of temporary insanity, and also that she destroyed her child in a fit of temporary insanity." They added a rider to the effect that greater restrictions should be placed upon the sale of poisons.

Mr. Morris was summoned at the City Police Court on February 4, charged with having unlawfully sold some prussic acid, being a poison named in the first part of Schedule A in the Pharmacy Act, 1878, to Eliza Ross, who was then a person unknown to him. The Chief of Police (Mr. Power) said this was a somewhat peculiar case, for the purchase of the poison could not be proved, because the person who purchased it poisoned with it herself and her child. For the purpose of proving the case, however, he had given notice to the defendant to produce his register of the sales of poisons. There was no doubt an entry of the sale was made at the time, but he contended that it had not been made in compliance with the Act, the proper safeguards not having been taken. Inspector Sommers stated that on the evening of the 22nd ult. he went to defendant's shop, and asked him to produce his poison-register. Witness found in it an entry of the sale of sixpennyworth of prussic acid on the 21st to "Mrs. Jones, Carden Street." In reply to questions, the defendant said he knew the woman well, that she was a charwoman, and had been a frequent customer at his shop. In answer to the Bench, the defendant denied having described the purchaser as a charwoman. William Ross, husband of the unhappy woman, who wore a deep black band on his left arm, said his late wife never acted as a charwoman, or went by the name of "Mrs. Jones." Mr. Power deposed that, at the inquest held by the City coroner on the bodies of the woman and the child, Mr. Morris said, in reply to the coroner, that he had no doubt the deceased was the same person who made the purchase in question at his shop. William Ross, being recalled and shown the entry in the defendant's register, denied that it was in the handwriting of his wife. Mr. Power remarked that the defendant acted illegally in not acquiring sufficient information about the woman to conform with the terms of the Act. In defence, Mr. Morris explained that he had known the deceased as a frequent customer at his shop for twelve months, and that he had often sold her quantities of laudanum which she had never improperly used, and he therefore contended that he had sufficient knowledge of her within the meaning of the Act. A fine of 1*l.* 1*s.* and 13*s.* costs was imposed.

THE SALE OF VERMIN-KILLER.—At the City Police Court, on February 4, Mr. Edward John Kitson, chemist and druggist, was summoned on adjournment for selling poison contrary to the provisions of the Pharmacy Act, on December 19. Mr. Quarrell appeared for the defence. Mr. Power,

chief of police, stated that on January 22 the case last came before the Court, and he was then asked by Mr. Quarrell to produce a certain Order in Council which Mr. Quarrell alleged was published in the *Gazette* in 1869. He had not seen that Order or heard about it. He had been in communication with the Privy Council, and he was now prepared to proceed with the case. A waiter testified to having, on a certain day, bought at Mr. Kitson's shop two pennyworths of chloride of lime and a packet of "rat-killer." Witness was not asked to sign a book. Cross-examined: Witness did not ask for poison, but "rat-killer." The packet was labelled "poison." William George, a porter, who had been tried for attempting to commit suicide by taking poison, deposed that he asked the last witness to fetch some mice poison for him. He did not say what he wanted it for. He admitted having taken the contents of the packet. He afterwards suffered from "pains all down the spine." He did not closely observe the packet. He remembered that it was labelled "Poison." Dr. Swete stated that he analysed a small quantity of the "rat-killer" remaining, and found it to contain strychnine. Mr. Power produced a copy of the *London Gazette* for Dec. 29, 1869, including preparations of strychnine as "poison" under the Act. For the defence, Mr. Quarrell submitted that the poison alleged to have been improperly sold, being a compound for the destruction of vermin, and not a preparation, was exempt from the Act, and that the day before the alleged offence was committed the defendant gave strict orders to his assistants not to sell any poison without duly registering it. A register of sales commenced on the previous day, and continued ever since, contained no register of the sale of "rat-killer" on December 19, and no "rat-killer" was sold on that day to any person answering the description of the man Eadon. Ernest Turner, one of the defendant's assistants, gave evidence bearing out this defence. Being permitted to make a statement to the Bench, Mr. Kitson denied that rat-poison was sold during his presence either on the 18th, 19th, or any subsequent day in December, or up to the present time, without registration. He had given strict instructions to his assistants not to sell "rat-killer" or any other poison without registering it, and he believed they had honestly carried them out. Inspector Sommers said that on the morning Mr. Kitson came to the office of the chief of police and demanded the name of their informant in the first prosecution against him. He said he believed it was one of his assistants, and he had discharged that young man. Witness informed him that the police received information by letter. It was not written by anyone connected with his establishment. The Mayor said this prosecution had been instituted on public grounds. There was no desire to deal harshly with Mr. Kitson any more than anyone else, as the magistrates had always known him as a respectable citizen. A fine of 2*l.* 2*s.*, including costs, would be inflicted.

THE SOCIETY OF PUBLIC ANALYSTS.

THE annual meeting of the Society was held on January 16, at Burlington House, the President, Mr. Wigner, in the chair. The election of officers for the ensuing year resulted as follows:—

President.

G. W. WIGNER, F.C.S., F.I.C.

Vice-Presidents.

C. HEISCH, F.C.S., F.I.C.
A. HILL, M.D., F.I.C.
A. WYNTER BLYTH, M.R.C.S., F.C.S., F.I.C.

Treasurer.

C. W. HEATON, F.C.S., F.I.C.

Hon. Secretaries.

BERNARD DYER, F.C.S., F.I.C.
OTTO HEHNER, F.C.S., F.I.C.

Other Members of the Council.

J. BAYNES, Jun., F.C.S., F.I.C.
C. ESTOURT, F.C.S., F.I.C.
R. H. HARLAND, F.C.S., F.I.C.
A. SMITHAM, F.C.S., F.I.C.
T. STEVENSON, M.D., F.R.C.P., F.C.S., F.I.C.
J. W. TRICE, M.D.

The members of Council whose term of office had not yet expired were:—Mr. A. Adams, F.R.C.S., F.C.S.; A. Ashby, M.B. Lond., F.R.C.S.; A. Dupré, Ph.D., F.R.S., F.C.S., F.I.C.; C. T. Kingzett, F.C.S., F.I.C.; J. Muter, Ph.D., M.A., F.C.S., F.I.C.; and P. Vieth, Ph.D., F.C.S.

The PRESIDENT (Mr. Wigner) said their total membership consisted of 141 members and 24 associates. He referred to the appointment of a committee to deal with the milk question; and added that, if the results of their investigations should justify such action, it would become their duty,

as a society, to urge on the Government the necessity for an amending Bill, which would also afford the opportunity for the introduction of a few more amending clauses. It would not be proper for him to say on what lines such legislation should proceed; but clearly it should tend towards making public analysts more directly responsible for their work, and the referee chemists, whoever they be, responsible instead of irresponsible.

[It is not quite clear what this may mean; but if the analysts wish to accept responsibility for their reports, that is, liability for their errors, there seems no reason why the public should interfere with such a laudable desire. The referee chemists, who hold public offices under Government, are already responsible to the public for their work.—ED. C. AND D.]

THE CHEMICAL SOCIETY.

January 17.

DR. W. H. PERKIN, President, in the chair.

The following gentlemen were elected Fellows:—B. H. Brough, G. Daubeney, C. C. Hutchinson, W. S. Kilpatrick, E. Matthey, H. Peile, J. W. Pallister, R. Romanis, S. G. Rawson, F. M. Rogers, W. Robinson, T. Stenhouse, W. O. Senier, J. A. Voelcker.

The following papers were read:—

"On Camphoric Peroxide and Camphorate," by C. T. Kingzett. In 1863 Brodie described the formation of camphoric peroxide by triturating camphoric anhydride with barium peroxide in the presence of ice-cold water. The author has repeated the above experiments and concludes that no camphoric peroxide is formed, but that the anhydride is first converted into camphoric acid, which decomposes the barium peroxide, yielding camphorate of barium and peroxide of hydrogen.

"On the Decomposition of Silver Fulminate by Hydrochloric Acid," by E. Divers and Michitada Kawakita. Formic acid and hydroxyammonium chloride are formed, as is the case with mercury fulminate, but the authors have only been able to obtain two-thirds of the calculated quantity of these acids. Some ammonia and hydrocyanic acid are also formed.

"Supplementary Note on Liebig's Production of Fulminating Silver without the use of Nitric Acid," by E. Divers and Michitada Kawakita. The authors have succeeded in preparing the fulminate, but only when the reaction was allowed to proceed for some time. The solution was then warm and always contained nitric acid.

"On Hyponitrites," by E. Divers and Tamemasa Haga. The authors criticise the recent paper of Berthelot and Ogier, and have made fresh investigations which confirm the formula originally proposed by Divers, AgNO_2 . They have not been able to obtain hyponitrite by either the method proposed by Mencke—i.e., heating potassium nitrate with iron filings—or the method proposed by Zorn, in which ferrous hydrate is used as the reducing agent.

February 7.

DR. W. H. PERKIN, President, in the chair.

It was announced that a ballot for the election of Fellows would be held at the next meeting of the Society (Feb. 21). The following papers were read:—

"On the Expansion of Liquids," by Dr. Mendelejeff; translated from the Russian by B. Brauner. In this paper the author, principally from data furnished by Thorpe ("Chem. Soc. Jour. Trans.", 1880, 141), gives the equation $V = \frac{1}{1-Kt}$

as expressing approximately the expansion of liquids. K is named the "determinator of expansion." It is a coefficient characterising each liquid, just as each liquid has a specific gravity, boiling-point, &c. The author states that the above expression, although many liquids deviate slightly from it, is sufficient in the majority of physico-chemical investigations.

"Researches on Secondary and Tertiary Azo Compounds," by R. Meldola. No. II. The author describes, in continuation of his former researches, the action of diazotised partranilin upon tertiary monamines. In the case of dimethylanilin, the resulting product is parannitro benzen azo

dimethylanilin. This, on reduction with ammonium sulphide, furnishes an amido compound, which is a most delicate test for nitrous acid. The nitro-azo compounds of the meta series could not be reduced by ammonium sulphide without complete decomposition. The author concludes that the β naphthylamine compounds of para and meta nitro-diazobenzene do not contain an amido group, as they yield, with nitrous acid, nitroso derivatives.

"Notes on the Nitrogenous Matters in Grass, and Ensilage from Grass," by E. Kinch. The author has determined the albumenoid and non-albumenoid nitrogen in a sample of grass, and in the ensilage made from the grass. In the grass 9 per cent. of the nitrogen was non-albumenoid; in the ensilage 55 per cent. of the nitrogen was non-albumenoid. The albumenoids were determined by the phenol, the copper hydrate, the mercuric hydrate, and the lead hydrate methods. The author points out the importance of this serious diminution in the albumenoids, with reference to the food value of ensilage.

"On the Influence of the Temperature of Distillation on the Composition of Coal-gas," by L. T. Wright. The author finds that more gas is obtained at high temperatures, but that it contains more hydrogen and less hydrocarbons.

PHARMACY IN AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

MELBOURNE, December 10.

EXAMINATIONS IN MELBOURNE.

THE present month is generally the busiest one in the year, at least so far as the educational portion of pharmacy is concerned, for during this month the students who have attended the last session of the school present themselves for examination. The number attending on this occasion was far in excess of any previous year—in all 53 candidates. For the Preliminary, 15 attended and 6 passed; for the examination in Materia Medica and Botany, 19 students presented themselves and 15 passed; Elementary and Practical Chemistry, 15 attended and 13 passed. The examinations in these two sections were conducted by Messrs. C. R. Blackett and William Johnson, and lasted two days, and in their report to the Pharmacy Board they stated that all the candidates showed fair ability.

I may here remark that a very fine collection of materia medica and botanical specimens was kindly supplied for this examination by Mr. R. W. Guilfoyle, the Director of the Melbourne Botanical Gardens. The next examination was the Modified, at which four candidates attended and three passed, and on the following day the whole of the Pharmacy Board sat as an examining body to conduct the Major examination in Practical Pharmacy. The divisions were as follows:—No. 1, Dispensing Examination, Messrs. Lewis and Owen. No. 2, Physical Properties and Proportions of Drugs; Examiners, Messrs. Bowen and Holdsworth. No. 3, Manufacturing and Testing; Examiners, Messrs. Blackett and Brind. Five candidates attended and four passed. I extract the following from the report adopted by the Board in reference to this examination:—

"The candidates who attended the Practical Pharmacy examination did well with the written questions, and all read prescriptions with facility, but there was some weakness in the practical dispensing. This would seem to indicate that the students had well studied the text-books, but have not had sufficient instruction and practice in the art of dispensing, which is obviously the most important part of their business; and it would be well for pharmaceutical students to bear in mind that the knowledge they acquire of chemistry, materia medica, and botany is of use to them so far as it should make them better and more skilful compounders of medicine. It is hoped that masters will remember their responsibilities, and teach their apprentices the practical part of their business."

It is satisfactory to record that those persons who have seen the manner in which these examinations have been conducted express themselves well satisfied with their practical and comprehensive nature.

EXAMINATIONS IN SYDNEY.

It is a matter of sincere regret, however, that the other colonies view with such utter indifference any attempt at uniformity in pharmaceutical education, and, although attempts have been repeatedly made to come to some common understanding, it appears impossible to carry them to a successful issue. The Sydney correspondent to the *Australasian Supplement to the Chemist and Druggist*, writing of the recent examinations in Sydney, says:—

"The result of the recent examination has been to revive the preparation lectures at the Technical College. The pharmacy and *materia-medica* class has a roll of sixteen students for the fourth quarter of this year.

"The Technical College has now been affiliated to the Department of Public Instruction, and placed under the management of a Board of Technical Education. It is a matter of great regret that this admirable institution is not used to a greater degree by chemists and druggists. In the chemistry class the trade is not represented; and the botany class, which was started especially for the benefit of chemists' assistants and apprentices, is in a similar condition. The reason is very plain. As long as a knowledge of these subjects is not demanded in the Society's examinations, so long will the study of them be neglected.

"Regarding the chemistry examination of the Pharmaceutical Society, very free comment has been made of late. It is the prevailing opinion that a radical reform is necessary, both in the nature of the questions, which have hitherto been absurdly simple, and also in the whole manner of conducting the examination. One question will suffice as a specimen—'Name some of the most powerful mineral poisons.' It is to be hoped that before the next examination some steps will be taken to bring about a reform where it is sadly needed; for, unless the Pharmaceutical Society wishes to become a laughing-stock of the scientific world of the colony, it must insist upon a far more severe and practical examination in the science."

SUICIDE OF A PROBABLE SCOTCH CHEMIST.

A new arrival in the colony named Joshua Bardolly committed suicide at the Coffee Palace, Bourke Street, by taking laudanum. The deceased, who was of gentlemanly appearance, and, from papers found amongst his effects, is believed to have been a chemist, was about forty years of age, and according to a passenger ticket sailed from Glasgow in the *Loch Shiel* on August 3 last. Amongst his papers was an "In memoriam" card relating to Jane Gardiner, of Glasgow.

The jury found that the deceased died from a poisonous dose of laudanum administered intentionally by himself, but that there was no evidence to show the state of his mind at the time.

THE PROSECUTIONS

Instituted some time since by the Pharmacy Board against persons infringing the "Sale and Use of Poisons Act" have continued, and about 180 cases have been taken into court, and in each instance a conviction obtained.

The desire of the Board appears to have been to have cases taken in all the principal townships in the colony, so that no one district could be pointed out as having been selected. There is no doubt that these prosecutions will do good in preventing the gross carelessness that has hitherto been shown in the sale and custody of poisons. Some excitement exists in

NEW ZEALAND

In reference to the new regulations respecting the sale of arsenic and strychnine.

The following are the regulations referred to, which appeared in the Government Gazette of October 18 last:—

"It shall not be lawful for any person to sell or dispose of strychnine or arsenic in any quantities unless such person shall, previous to making the entry required by the provisions of the 12th Section of the said Act, obtain from the intending purchaser of such strychnine or arsenic a statutory declaration setting forth the particulars hereinafter mentioned. Immediately upon completion of the purchase, the seller of such poison shall forward such statutory declaration to the registrar of the district appointed under the said Act."

"Every such declaration shall state precisely (1) the christian name and surname of the intending purchaser at full length, together with his or her occupation and address; (2) the exact quantity and name of the poison required; and (3) the express purpose or purposes for which such poison is alone intended to be used, and the places or localities where the same is to be used or deposited respectively."

A meeting to consider the matter is to be held on December 19, 1883, at the New Zealand Drug Company Office, Dunedin.

PHARMACY IN CANADA.

(FROM OUR OWN CORRESPONDENT,)

MONTRÉAL, December 29.

THE holiday season has arrived, and your correspondent must plead Christmas dissipation as his excuse for not getting his letter off by the last mail.

Retailers are beginning to ask themselves whether the large increase of

COMMERCIAL TRAVELLERS

Of late years is a benefit or not. Take Montral, for instance. There are five wholesale houses, all of whom, instead of inducing the retailer to go to them by providing properly-arranged sample-rooms and an intelligent clerk to receive him, send out commercial travellers. Now a retailer who has any business at all to attend to naturally finds it an annoyance to be badgered for orders by five travellers a day, not to mention the representatives of the drug-brokers, patent-medicine men, sponge-dealers, plaster-makers, and bottle manufacturers of the United States.

The evils produced by this system are numerous. The druggist is induced to buy in smaller quantities than he should, and more frequently; he does not sample the drugs he buys, thus making him careless in his purchases; he is not always certain that the article he orders is in stock at the wholesale house, thus losing a day before he can re-order from another firm. As a rule the city traveller is a junior who is trying to qualify himself for the road, and, in his anxiety to show his ability, is very apt to make statements not in accordance with truth; and he is very much given to repeating everything he sees and hears while he is waiting for the druggist to be disengaged. Undoubtedly the city retailer throws away the great advantage he possesses over his country *confrère* by not making personal visits to the wholesale houses. He will see the goods before he orders. He will see new goods coming in, besides many odds and ends, which may be "just what he wants." Above all he will have an excuse for shaking off the dust of his prison-house at least once a day. I have made it a rule to go down town daily, to visit one or more of the wholesale houses, for the last twenty-four years, and I am not aware that I ever lost anything by it: on the contrary, I have gained a great deal in experience.

As I prognosticated in my last letter, the absurd agreement amongst the Montral wholesalers to sell some 182 specialties only at pre-arranged prices is doomed, and healthy competition will soon again be the order of the day. One leading firm has decided to manage its business in its own way, independent of dictation from any quarter, and will shortly issue circulars to that effect. The retailers to a man will appreciate this action on their part.

Business on the whole is good. According to the *Journal of Commerce* shipments of heavy chemicals from Liverpool to Canada for November are 1,582 tons, against 346 tons for the corresponding month of 1882.

January 23.

In my last I alluded to impending changes in at least two of our wholesale drug-houses. With the old year the partnership existing between Mr. John Kerry and Mr. David Watson, under the name of "Kerry, Watson & Co.," expired; and on January 1 Mr. William Simons Kerry, eldest son of Mr. John Kerry, was taken into the firm as junior partner, the members now being John Kerry, David Watson, and Wm. S. Kerry, the name of the house being as before.

The partnership existing under the name of "Lyman, Sons & Co." also expired about the same time, and Mr. Alexander Manson, the junior member and acting manager, retired. The *personnel* of the new firm is not yet definitely settled. I will send you the information in my next. Mr. Manson's retirement is much regretted by the trade in general. He was very popular, and was an ex-President of the Pharmaceutical Association and a member of the Board of Examiners, and is also Treasurer of the College of Pharmacy. It is rumoured that he may possibly leave the drug trade altogether, as very advantageous offers have been made him in another, but allied line of business.

Messrs. H. Haswell & Co., I regret to say, have been burnt out of their premises on McGill Street, and have removed to 480 St. Paul Street. They were fully covered by insurance.

A pleasant affair, which will be long remembered by the pharmacists of this part of the world, took place last week at the City Club. Messrs. Kerry, Watson & Co., in order to celebrate the new era in their firm, and also with the laudable desire of bringing their customers into closer social communion with one another and with the house, gave a dinner to the pharmacists of Montral, and about fifty gentlemen sat down to table. Of course the auspicious occasion was taken advantage of by the guests to drink the health and wish all prosperity to the new junior member of the firm. The usual loyal toasts having been proposed by the chairman (Mr. John Kerry), and duly honoured, the health of "Our Guests" was proposed by the vice-chairman (Mr. David Watson), who, in a very able speech sketched the policy and prospects of the house, alluding to the fact that they intended to adhere closely to wholesale transactions and to discourage in every possible way any competition whatever with retail pharmacists and jobbers. Complaints—and very just ones, too, in his opinion—had frequently been made at so-called wholesale drug-houses sending representatives to call on doctors and even small country shopkeepers, and he was proud to say that none of this strictly retail business was done by the firm which he had the honour to represent. His firm had always felt it was the true interest of wholesalers to foster and protect the retail pharmacist from unhealthy and illegitimate competition. With regard to adulteration, Mr. Watson stated that, so long as the firm existed, all their transactions would bear the light of day. Mr. Watson sat down amidst boisterous applause; after which Messrs. John Birks, Harte, Saunders, Nelson, Parridon, and Dr. Laviolette briefly responded. The toast of "The Medical Profession" having been proposed and duly responded to, "The Pharmaceutical Association and College of Pharmacy" was next duly honoured. Mr. H. R. Gray gave "The Health of the Firm," and Mr. Watson, in another speech, thanked the company for their good wishes. Some excellent singing by Messrs. Creighton, Blundell, Dugal, Lachance, and Costem filled the balance of the evening, and to the strains of "Auld Lang Syne" the happy event was brought to a close. I forgot to mention, when giving a description of the wholesale drug trade of Montral in the December number, that Messrs. Kerry, Watson & Co. have an important branch at London, Ontario, some 500 miles west of Montral. Many people think if our great North-West continues to increase in the future as it has done in the past, that London may, perhaps, become a great distributing centre for that region. Be that as it may, it is a lively little city as it is, and a large amount of business is done there.

Business is rather dull just now, but retailers hope it is the lull before the great rush of business expected during Carnival week. I allude to our special Winter Carnival, peculiar, I believe, to Montral. It is a sort of exposition for the benefit of strangers of all our winter sports. An immense palace of ice is already built, double the size of the one last year, and programmes of snow-shoe and skating races, curling matches, trotting-races in racing-sleighs on the ice, tobogganing parties, masquerades in the skating-rinks, grand torchlight processions of all the snow-shoe clubs, and so on, are already issued, copies of which I send you with this letter. All the hotel accommodation in the city is engaged, principally by wealthy Americans from the Southern States and New York, and hundreds of private families have placed beds at the disposal of the Carnival Committee to make room for all the visitors expected.

I have just read in a city paper that 42 per cent. of all

the commerce of the Dominion of Canada was done last year with the United States, and that we imported from there in the same period \$56,000,000 worth of goods.

On examining the official Blue-book just issued, I find that the province of Quebec imported last year 31,213 lbs. of glycerine from Great Britain and 16,517 lbs. from the United States, the total import of glycerine into this province from all parts of the world being 215,766 lbs. The total import of all the provinces of the Dominion was 340,780 lbs., the duty being 20 per cent.

The total import of morphine for the Dominion is given as 825 oz., but this, I take it, is an error, as one firm in Montreal assures me they imported and paid the 20-per-cent. duty on 1,500 oz. I presume that morphine, coming, as it frequently does, in an assorted case of drugs, the duty on the whole of which is the same, is not made the subject of a separate entry, and consequently escapes separate classification.

Opium, which is another 20-per-cent. drug, is scheduled at 31,752 lbs. for the Dominion, of which the province of Quebec imported 5,467 lbs. This figure, I also suspect, is much below the mark. The import of opium prepared for smoking, which pays a duty of \$5 per lb., is given as 2 lbs. It is quite possible a high rate of duty encourages smuggling. There are, perhaps, not a dozen Chinamen in Montreal, and they nearly all, to my personal knowledge, have opium-pipes. In British Columbia, the most westerly province of the Dominion, the Chinese are very numerous, outnumbering, I believe, the European population; so it is evident that the opium extract they use is unenumerated, so far as the Custom-house is concerned.

Forty-two thousand one hundred pounds of camphor, paying a duty of 20 per cent., was imported into the Dominion last year, of which 34,652 lbs. was imported by the province of Quebec, 8,443 lbs. being from Great Britain, and 26,209 lbs. from the United States.

I am afraid your readers will be getting tired of my dry statistics, so I will spare them the infliction of more.

The British Association for the Advancement of Science is to hold its annual meeting here this year, and our scientists, with Dr. Dawson at their head, are in high glee at the prospect of having the great men of the scientific world among them. That true humility which always accompanies great ability will rather astonish some of the scientists on this side of the Atlantic, very few of whom are troubled with much humbleness of heart.

INTERNATIONAL EXHIBITION AT NICE.

(FROM A SPECIAL CORRESPONDENT.)

NICE, February 4.

IN accordance with your desire, I last week again visited this so-called International Exhibition. Everything in Nice must in some respects acquire an international character, but it would have been more accurate, as well as more modest, if the promoters of this enterprise had described it as a bazaar. Its lovely site and surroundings, however, and, for its size, the general get-up render it very attractive, particularly to us dull-weathered Northerners. The hill-sides are clad with orange, lemon, and olive trees of old standing, filled in with artificial grasses, aloes, palms from the date downwards, while the Eucalypti of Australia flourish here at least, as well as in their native clime. Several of the towns in the Alpes Maritimes have erected in the lower grounds their own buildings, surrounded with small gardens, laid out very tastefully with the plants of their districts, while the buildings are to contain the special products extracted therefrom. These buildings, like the main exhibition, are in several cases very incomplete. Cannes is not yet finished; Grasse is finished, but almost empty. The exhibits interesting to your readers are not very numerous, and are not yet more than half ready, so I must postpone anything like a report till your March number. Perhaps the best idea of the unpardonable delay will be given by stating the fact that the two lifts which are to convey visitors to the upper galleries are still unfinished.

The Druggists' Lawyer.

TRADE-MARKS: THEIR ORIGIN, NATURE, AND VALUE, AND THE MODE, EXPENSE, AND ADVANTAGES OF REGISTRATION.

(Continued.)

BESIDES those registered trade-marks which are within the Acts of Parliament already quoted, there are numbers of trade names and similar terms of which no collective record is in existence, which have become the subject of protection by the courts, as being the property of the persons who have used them and made them valuable. And it is important to bear in mind the distinctions between trade-marks as defined by the statute and analogous cases outside that definition. The former must be registered before a right of action for infringement can arise; the latter cannot be registered at all. It is sufficient in the former case to prove the fact of infringement, and it is not necessary to prove or allege fraud; in the latter case, the right of action is founded upon the fraudulent or injurious assumption by one person of a name or symbol which by previous use has become the exclusive property of another person or firm. For convenience we may call the latter trade names, and we shall take the liberty of including under this designation a few cases which scarcely come within it.

When there is any doubt about the right to use a proper trade-mark, a search of the register can be resorted to; but there is no register of trade names, and hence there is the more need for caution in the adoption of a name or symbol to be used, as well as somewhat greater uncertainty in determining whether the proprietor of an established trade name would be justified in proceeding against a person who is endeavouring to introduce a similar name which is calculated to injure his business, though not identical with that which he has himself long used. Thus the absence of an official register is doubly injurious, the proprietors of established trade names being the greatest sufferers. The decided cases have much interest and variety, and we have thought it desirable to quote a few of them, not confining ourselves exclusively to those affecting chemists and druggists; though the latter class may require rather more of our attention than those which have arisen out of other trades.

The well-known firm Day & Martin have contributed two cases on this subject. In the first, Day *v.* Binning, the plaintiffs having sold blacking in bottles labelled "Manufactured by Day & Martin," the defendant began to sell blacking manufactured by himself in similar bottles with similar labels, with this difference only, the words "Equal to Day & Martin's" being substituted for those quoted above, and the words "Equal to" being printed in very small type. The plaintiffs were granted an injunction restraining the defendant from imitating their labels, or using any labels having a general resemblance to the labels of the plaintiffs with intent to deceive or mislead the public. In the second case, Croft *v.* Day, the defendant's name really was Day, and he was a relative of Mr. Day, who was formerly the head of the firm. Both the original members of the firm having died, the business was being carried on by the plaintiffs as executors of the last survivor, when the defendant commenced business near them in the name of Day & Martin, having arranged with a man named Martin for the use of his name, though it does not appear that the latter took any active part in the management. The labels used by the defendant were similar to those which the plaintiffs and their predecessors had long used, except the address. The then Master of the Rolls,

Lord Langdale, in granting an injunction, said that the principle involved was this: that no man had a right to sell his goods as the goods of another, and that two things were required for the accomplishment of such a fraud. First, there must be such a general resemblance of the forms, words, symbols, and accompaniments as to mislead the public; and secondly, a sufficient distinctive individuality must be preserved, so as to procure for the person himself the benefit of that deception which the general resemblance was calculated to produce. These judicial remarks enunciate clearly the fundamental principle on which the two quoted decisions and all others of the same nature are founded. It appears to be somewhat remarkable to say that two men may not carry on business in their own names; and as a general proposition this could not be maintained, but they must not so use their own names as to deceive the public and injure those who have acquired a right of property in those names as used in connection with a manufactured article.

Deceit in all its forms is utterly abhorred by the English law. Fraud vitiates everything which is tainted therewith; and in this general principle (which extends to all branches of the law) is to be found the key to all decisions on the subject now under consideration.

The Bond family have had much litigation in connection with the manufacture of marking-ink, and the question, Who is Bond? has been asked somewhat despairingly, when none of the conflicting claimants bore that name, though all claimed to have derived their rights from the original John Bond.

In *Dence v. Brand* a distinction was drawn between the terms "original inventor" and "original manufacturer," the defendant being allowed to use the latter term, but not the former. In this case the decision turned upon the facts; and no general principle was involved, except that a person must confine his representations within the limits of truth, or he will be liable to be restrained.

The case of Warburg's Tincture will be familiar to some of our readers. The tincture having acquired a reputation by that name, a Madame de Warburg was restrained from selling a preparation by the same name, though she was allowed to call it "Madame de Warburg's Tincture," a decision which probably did not satisfy either party.

In *Rowland v. Breidenbach*, the plaintiffs sought to restrain the defendant from selling a certain oil as Macassarine, on the ground that the public would thereby be led to believe that they were purchasing Macassar oil manufactured by the plaintiffs, but did not succeed, it being held that the name was descriptive, not imitative.

The two cases of *Browne v. Freeman* are very interesting. Dr. John Collis Browne invented a medicine to which he gave the name of "Chlorodyne," and it was sold in bottles labelled with the words "Dr. J. Collis Browne's Chlorodyne." When the defendant began to advertise a mixture as Chlorodyne, the plaintiff filed a Bill in Chancery to restrain him from using that word, in which he claimed to have acquired an exclusive property. In 1858 the plaintiff had registered a label at Stationers' Hall, with a view to securing his exclusive right to use the name which he claimed to have invented and applied to his medicine. However, having been advised that his right to an injunction was doubtful, he discontinued the suit, and obtained the dismissal of his bill with costs. This was in 1862, and in 1864 another suit between the same parties came on for hearing, the defendant having gone a step further, and called his preparation "The Original Chlorodyne." In this second suit the plaintiff sought relief on the ground that the term so used by the defendant was calculated to mislead the public into the belief that his medicine was that of the plaintiff, and fraudulently to injure its sale and repu-

tation. It was stated in evidence that the medicine of the plaintiff was generally known as Chlorodyne simply, and that a prescription containing that name would mean the plaintiff's medicine only. The defence was founded upon the fact that the defendant had always sold his medicine with his own name, and he claimed to have used it since 1844, two years before the plaintiff invented his medicine and its name. The plaintiff's bill was dismissed on two grounds:—(1) Although the word Chlorodyne might originally have been protected as a fancy name, the plaintiff had abandoned all claim to an exclusive right in it by dismissing the suit which he had commenced to restrain the use of it. (2) The plaintiff was not entitled to an injunction to restrain the defendant from the use of the term "Original Chlorodyne," because there was no evidence that the assumption of that title by him caused his medicine to be supposed to be of the plaintiff's manufacture. The Vice-Chancellor, Sir William Page Wood, afterwards Lord Chancellor Hatherley, in dismissing the bill said: "I believe the plaintiff to have been the true and original inventor of the compound. I cannot interfere with the defendant, although I very much disapprove of his conduct. I am obliged to dismiss the bill, but I shall certainly dismiss it without costs." The plaintiff appealed, but his appeal was dismissed on the grounds that the name had become the name of the article; that the defendant had always sold his medicine with his own name attached thereto; and that any untrue statements in the defendant's advertisements only amounted to slander, in respect of which an action for damages was the proper remedy.

Eau de Cologne might well be called the lawyer's perfume, for it has probably given rise to more litigation in various parts of the world than any other article. Most of these proceedings were of the ordinary type—to restrain infringements of the rights of the plaintiffs by imitations, more or less clever, of their labels. But *Farina v. Cathery* was distinctive. In that case a manufacturer in Germany sold a similar article with a succession of labels, the first being dissimilar to that used by the plaintiff, and each alteration being a nearer approach to the plaintiff's label; but still, certain parts were retained of the original label of the manufacturers, whose agents the defendants were; and then the use of the label was defended because it (that is to say, the original, not the altered label) had been in use so long as to have acquired a right. But the defendants were restrained from selling bottles bearing the altered label which approached so nearly to the label of the plaintiff as to be calculated to mislead.

Farina v. Silverlock was a suit to restrain a printer from printing and selling labels similar to those used by the plaintiff, and Vice-Chancellor Wood granted an injunction, holding that the plaintiff was entitled to restrain the defendant from scattering over the world the means of enabling parties to commit fraud upon him. Lord-Chancellor Cranworth dissolved the injunction because there was no evidence that the labels had not been printed for a legitimate purpose, viz., to replace on genuine goods genuine labels which had become obliterated; but he gave the plaintiff liberty to bring an action, which he did, and the verdict of the jury in his favour having been upheld by the Court of Queen's Bench, the injunction was restored by the Vice-Chancellor, and the defendant was restrained from printing and selling the labels. If a similar case were tried now it would probably be decided more quickly, as the Chancery Judges could decide upon the whole question at issue between the parties, though they would still have power, if they thought it desirable, to have the verdict of a jury on any question of fact. The same point had previously been decided in *Farina v. Shaw*, but in that case the defendant submitted to an injunction, and carried the

ontest no further, whereby he saved a considerable amount of costs.

The cases in which persons commencing business seek to utilise their former service in some great house are too numerous to require more than a passing notice here. One of the most distinctive of these cases was that in which a beginner was restrained from styling himself "From Crosse & Blackwell," but was allowed to state that he had been a foreman of that firm. In this case the different inferences to be drawn from the two phrases are obvious; the former might be supposed to mean that he had been a member of the firm mentioned; but the latter was not open to that construction. It is now usual to make this future use of the name of employers a matter of contract, the assistant signing an agreement not to use the name within a certain number of miles from the establishment into which he is entering, and his restriction, being limited as to area, may be enforced at any time.

The old decisions as to the exclusive right to use a fancy name invented by the plaintiff will acquire additional importance in consequence of the power given by the Act of 1883 to register as a trade-mark a fancy word not in common use. We therefore think it will be useful to notice briefly a few of these decisions.

In *Smith v. Mason*, the plaintiff, a chemist and druggist at Lincoln, applied the name of "Pectorine" to a cough mixture which he prepared, and which acquired considerable reputation after having been extensively advertised. The defendant afterwards prepared a medicine for coughs and colds which he called by the same name. The case was elaborately argued; the principal point being that pectorine was a descriptive word equally applicable to both preparations, and not a fancy name in which the plaintiff had acquired, or could acquire, an exclusive right. In justice to the defendant it must be stated that he claimed to have invented the word himself, and to have had no knowledge of its having been used by any other person when he first began to use it, though he admitted that he continued to use it after he had notice of the right claimed by the plaintiff. The Vice-Chancellor (Sir Charles Hall) in granting an injunction to restrain the defendant from using the name, said it was a misfortune that he should have hit upon that particular name, a misfortune which might have weight in settling the question of costs, but which could not take from the rights of the plaintiff, and the name, according to the more modern authorities, was a property belonging to the plaintiff. The label used by the plaintiff had been registered at Stationers' Hall, like Dr. Collis Browne's original Chlorodyne label, but the decision of the Vice-Chancellor did not turn upon that, such registration being useless in the case of a mere label, as we shall presently explain. It was well explained in the judgment how the right arose, that is to say, by the continued use of the word by the plaintiff, the case having been decided before the passing of the Act of 1875, which first established a registry of trade-marks. The judge said that patent medicine vendors, as a rule, began with small beginnings, but in those beginnings they originally acquired the protection of a trade-mark. And it is the same in other branches of business. A fancy name when first introduced has no pecuniary value; but when a business is built up in connection with such name, it acquires a value which increases with the growth of the business.

With reference to the contention of the defendant in the last-mentioned case, that the name was descriptive, it has repeatedly been decided that there can be no exclusive right to use a name which is merely descriptive of the quality or properties of the article sold by that name. In *Raggett v. Findlater*, the plaintiff, a brewer, sold stout of his own

brewing in bottles, labelled "Nourishing London Stout," and the defendant sold stout in bottles bearing labels on which were the words "Nourishing Stout," but such labels differed in other respects from the labels used by the plaintiff, and were not alleged to be imitations thereof. The motion for an injunction was refused, on the ground that a right of exclusive use could not be acquired in an English adjective denoting quality. The Vice-Chancellor (Sir Richard Malins) said that it was of the highest importance that, on the one hand, every protection should be given to trade-marks when fairly and properly used within just limits, and on the other hand, that by the use of a particular word, or anything which might be called a trade-mark, the right should not be unduly extended, so as to infringe on the rights of traders to call their articles by a quality they possess, or to give an undue protection to any man who happens to use a particular word. In other cases it has been held that such words as "superior" and "superfine" could not be appropriated, which appears self-evident. In *Braham v. Bustard*, however, the word "Excelsior" had been used by the plaintiffs to designate their white soft soap, and the defendants were restrained from using that word as applied to a similar article, it having been held to be a fancy word, and not merely descriptive of the quality of the soap; whence we may fairly infer that there may be disadvantages in the use of plain English.

Liebig's Extract of Meat Company (Limited) v. Hanbury went a little further. The plaintiffs were manufacturers and vendors of Liebig's extract of meat—a well-known preparation—and the defendant, having commenced the manufacture and sale of an article prepared in the same way and called by the same name, the plaintiffs endeavoured to obtain an injunction to restrain him from doing so; but their application was refused, on the ground that the name had for some time before been in common use as descriptive of an article prepared in a particular manner.

In *Young v. Macrae*, the plaintiffs were patentees and manufacturers of paraffin oil, and the defendant began to deal in an article which he called American paraffin oil. The plaintiff's motion for an injunction was refused, on the ground that where a person has found out a natural product and given it a name, that name becomes designatory of the natural product, and may be generally used. It was also held that where a name has been usually applied to goods manufactured by a particular person, not because they are of his make, but because he, as having taken out a patent, could alone make them, then, after the expiration of the patent, the name may be generally used; or even during the continuance of the patent, if a new means of getting at the natural product without infringing the patent is discovered.

In the case last quoted the judge referred to the advantage of inventing extraordinary names for use as distinguishing any particular article—the more ridiculous the name, the better adapted for its purpose—and said that if such a name had been used for eighteen years the Court would take care that nobody else should use that absurd name; for such user could only be for the express purpose of defrauding the plaintiff, by representing goods manufactured by one person to be goods manufactured by another. This, however, was no part of the decision, and had no direct bearing thereon, being merely an expression of judicial opinion; but it does not affect the question of policy. We have already remarked that an unpronounceable name may prove fatal to a meritorious invention.

It is often important to know how near a new name may approach to an established fancy name, and there have been many decisions on this point. In *Carrick v. Morson*, the plaintiffs were the manufacturers of lacto peptine, and the

defendants of a preparation which they called lacto pepsine. On the application by the plaintiffs for an injunction, it was argued, on behalf of the defendants, that the name was descriptive of the composition of the article manufactured by the plaintiffs, and therefore they could not acquire a right to the exclusive use of the name; but the Court decided otherwise, and, holding that it was a fancy name, the defendants were restrained from its further use. A somewhat similar case was that of *McAndrew v. Bassett*, in which the word "Anatolia," as stamped upon liquorice, was held to be protected; and in that case Lord Chancellor Westbury clearly laid down the rule as to the use of names having a geographical origin, saying that property in such a word for all purposes could not exist; but property in that word, as applied by way of stamp upon a particular vendible article, did exist the moment that the article went into the market so stamped, and there obtained acceptance and reputation, whereby the stamp got currency as an indication of superior quality, or of some other circumstance which rendered the article so stamped acceptable to the public.

The case of *Lamplough v. Balmer* has always appeared to us to be a case of considerable hardship. The plaintiff applied for an injunction to restrain the defendant from using the name of "pyretic salts," which approached somewhat nearly to the plaintiff's "pyretic saline"; but the injunction was refused, not upon the merits, but because the plaintiff had used on his labels the words "Royal Letters Patent" on the erroneous supposition that he had a right to do so, in consequence of his having long paid patent medicine duty. The case of *Eno v. Stephens* related to a registered trademark, and will be noticed next month.

The most interesting of this class of cases is *Grillon v. Guenin*. The plaintiff was the manufacturer of "Tamar Indien." The defendant, having advertised an article called "American Tamar," the plaintiff applied for and obtained an injunction restraining him from the use of the word "Tamar," in which he (the plaintiff) had acquired a vested interest. For the defendant it was argued with much force that the plaintiff had no exclusive right to the word "Tamar," that it was a name in common use among French chemists and druggists, and was also known to the trade in England, though not to the same extent; that it was of Arabic origin, signifying a date or the fruit of the palm-tree; and that the city of Tamar mentioned by the prophet Ezekiel was identical with Palmyra. It was stated that the tree grows in both hemispheres; but, the Indian product being the most general, *Tamar indicus* became the ordinary Latin name for the fruit, from which the word "tamarind" had been derived, as well as the plaintiff's fancy name. Unfortunately, the defendant did not appeal against the decision of the Vice-Chancellor, which we cannot regard as being very satisfactory.

It will have been seen that it would not be easy (or, indeed, possible) to lay down a series of general propositions or definitions which would include all the decided cases; and this is the reason that we have availed ourselves so largely of judicial decisions by way of illustration. The distinctions between some of the cases run so fine as to be scarcely perceptible.

The question of the effect of registration of a label at Stationers' Hall, with a view to acquiring a copyright therein, has been incidentally referred to, and appears to require a brief explanation. The copyright which is supposed to be acquired is that granted to books entered at the hall. But the term "book" is defined in the Copyright Act as signifying and including a volume, part or division of a volume, pamphlet, sheet of letter-press, sheet of music, map, chart or plan, separately published. As a mere label does not come

within this definition, it follows that registration with a view to securing the copyright therein is useless. There has been no express decision on this point in England, probably because it has not been thought worth the cost of a contest; but in several cases the judges have treated such registration as nugatory, the most recent of such cases being that of *Spalding v. Reinhardt*, where the name "Family Salve" had been so registered, and the Vice-Chancellor passed by the mention of the registration with the remark, "That is nothing," and gave his decision on other grounds. In America, however, the question has been expressly decided in the negative.

(To be concluded next month.)

GLYCERINE AND ITS IMPURITIES.

By F. H. ALCOCK.

(Concluded from page 17.)

Impurities.—In directing my attention to the impurities that may be looked for in samples of glycerine I have not had in mind intentional impurities, but only such as might be expected from the many published methods of manufacture. I will, however, enumerate some that would always be looked for in a suspected sample besides those resulting from manufacture.

(1) Sugar of various kinds (including sucrose, glucose, dextrose, and others). These would be detected by such reagents as Fehling's solution, potassic hydrate, hydrochloric acid, dilute sulphuric acid, or removed by chloroform.

(2) Water, indicated by the sp. gr., which is reliable provided there is no indication of addition of solid matter or other impurity. Vogel's formula is very useful in applying this test to find out the percentage of water:—

$$x = \frac{100 (p - 1.266)}{p (1000 - 1.266)}$$

where 1.266 = anhydrous glycerine, p = sp. gr. of sample under examination, and x the proportion of water contained in 100 parts of the glycerine. Tables have been prepared such as those used for ordinary alcohol, and may be found on reference to works on the subject. British Pharmacopeia glycerine, according to this formula, would contain about 95 per cent. anhydrous glycerine.

(3) Organic acids, including mucilage, detected by lead acetate, which forms insoluble salts with them.

(4) Inorganic salts, indicated by sulphuretted hydrogen (Po , &c.), sulphhydrate of ammonium (Fe , &c.), oxalate of ammonium (Ca , &c.).

(5) Acids, indicated by litmus and, for direct tests, Ba_2NO_3 , indicates sulphates, sulphites; AgNO_3 , chlorides, and formate. This latter would be a very serious impurity because of its intensely irritating properties when applied to abraded skin. With nitrate of silver and one drop of ammonic hydrate, and warmed, it would give a metallic mirror. If present, $\text{CaCl}_2 + \text{AmHO}$ would indicate oxalic acid, which, too, would be a serious impurity if glycerine were taken internally.

Butyric acid would be indicated by sulphuric acid with a little rectified spirit, the agreeable odour of butyric ether (pine-apple) being evolved.

Absence of fats and fat acids are indicated when the glycerine becomes miscible with water and alcohol.

Nitrogenous bodies must be absent, their presence being detected by beating the glycerine with a 15-per-cent. solution of sodic hydrate, when no ammoniacal gas should be evolved. Another method of detecting nitrogen is by the combustion method, or heating some of the glycerine with metallic sodium to redness, and examining the residue for cyanide of sodium in usual way. Mercury dissolved in strong nitric acid should not give any indication of gelatinous or albuminous substances.

Perfumers consider a glycerine equal to their requirements if appearance and other physical characters are right, and if, when mixed with solution of nitrate of silver and allowed to stand twenty-four hours, no sensible colour appears.

With the above brief description and uses of the reagents the following table will be intelligible:—

TABLE OF RESULTS.

Sample	Sp. Gr.	AgNO ₃	Ba ₂ NO ₃	CaCl ₂	Am ₂ C ₂ O ₄	H ₂ S	NH ₄ HS	H ₂ O	CHCl ₃	Sp. Ether (1 ap. 3 ether)	S. V. R.	H ₂ SO ₄	Colour	Fehling's Solution	HCl	
1	1.260	No result	No result	No result	No result	No result	No result	No result	Miscible	Not miscible	Miscible	Very faint odour	In the cold no immediate colc- ration	None	No re- duction	No re- duction
2	1.241	Slight tur- bidity	Very slight turbidity	No result	Slightest turbidity	No result	No result	No result	Miscible	Not miscible, not coloured	Miscible	Slight odour	Darkening	Faint, straw-like		
3	1.211	Slight tur- bidity	Very faint turbidity	No result	No result	No result	No result	No result	Miscible	Not miscible	Miscible	Slight odour	Brackening	Strawlike		
4	1.237	Decided precipitat-	Considerable precipitat-	No result	Precipitate	No result	Slight darkening	Miscible	No result	Not miscible	Miscible	Cold, no re- sult; warm, slight odour	Decided darkening	Brown		
5	1.260	No result	Very slight turbidity	No result	No result	No result	No result	No result	Miscible	Not miscible	Miscible	No result	Very slight odour; no immedate blackning	None	No re- duction	No re- duction
6	1.260	No result	No result	No result	No result	No result	No result	No result	Miscible	Not miscible	Miscible	Very slight odour	Slight dark- ening, slight odour	None	No re- duction	No re- duction
7	1.240	Decided precipitat-	Decided turbidit-	No result	Precipitate	No result	No result	No result	Miscible	Not miscible, slightly coloured	Miscible	Tallow-like odour	Tallow odour, dark- ening	Dark brown		
8	1.210	Decided precipitat-	Decided turbidit-	No result	Decided turbidity	No result	No result	No result	Miscible	Not miscible	Miscible	Slight odour	Darkening, slight odour	Dark brown		
9	1.240	Decided precipitat-	Decided turbidity	No result	Faint turbidity	No result	Faint turbidity	No result	Miscible	Not miscible	Miscible	Slight odour	Darkening, slight odour	Light brown		
10	1.2340	Decided precipitat-	Decided turbidity	No result	No result	No result	Slight darkening	Miscible	Not miscible	Not perfectly miscible	Miscible	Cold, strong odour; warm, darkening	Darkening, dried odour	Light, shiny colour		
11	1.220	None precipitat-	Decided precipitat-	Slight turbidity	No result	No result	Slight darkening	Miscible	Not miscible	Not miscible to clearness	Does not give clear solution	Effervescence, irritating odour, increased by warming	Very deep brown			
12	1.345	Very dense precipitat-	Decided precipitat-	Decided precipitat-	Slight turbidity	No result	Slight turbidity	No result	Not miscible, slightly coloured	Deposits after a time	Does not mix clear	Cold, effervescence, disengaging odour	Effervescence, disengaging odour	Dark, treacle-like		
13	"	" before filtra- tion, 1.059; β , after filtra- tion, 1.036	Dense precipitat-	Decided precipitat-	Decided precipitat-	Faint turbidity	Faint turbidity	No result	Miscible with water after fil- tration	No result	No result	Unpleasant odour; no efferves- cence	Effervescence, strong irritat- ing odour; slight darkening	Deep, sherry-like		

In conclusion, a little of the history of the samples examined will enable us to see that we have sources which yield us very pure glycerine (although not absolute, for that can only be got with extreme difficulty, its specific gravity then being 1.270-1.280; and even when obtained, like other alcohols, it is so hygroscopic that it would not remain long in that state unless carefully kept from moisture), and will also show that pure glycerine from soap lyes is a problem. We must, however, say that, considering the many obstacles to be overcome in the production of glycerine from such a source, it is very creditable to find that we have arrived so near to the goal.

Nos. 1, 2, 3, 4 illustrate stages in the manufacture of the purest glycerine met with in commerce. The process of production is only known to the manufacturers. It will be seen, on reference to the table, that distillation must be one of the chief factors, since the crude contains lime and other salts which cannot be removed satisfactorily in any other way.

No. 5. A very pure sample; process, probably, from stearic candle manufacture and subsequent distillation.

No. 6. Of German origin, source of manufacture not known; not from lyes.

Nos. 7, 8, 9 are respectively the crude, refined, and refined varieties obtained from soap lyes by a well-known firm of soap manufacturers, by a process which is patented. We see at once a great difference in the action of reagents as compared with previous numbers. Now we get precipitations, turbidity, darkenings, and disagreeable odours with them, which certainly do not indicate purity.

No. 10 is described as "Glycerine for Veterinary use," and I have no doubt would be of great use in that kind of practice, but would not be admissible on any account in pharmaceutical operations.

No. 11. A specimen prepared by myself from soap lyes in order to compare it with the samples examined from the same source. It has not been subjected to distillation, but simply to the action of chemical reagents. It may be described as unsatisfactory.

No. 12. A sample of concentrated lyes without any treatment at all; was obtained by evaporation in steam-jacketed pan. It represents a portion of 16 lbs. which had been obtained by the evaporation of 420 lbs. of lyes.

No. 13 α and β represent the lyes before and after filtration through paper, in fact they give us a fair idea of what used to be, and by some manufacturers is still, emptied into our rivers, &c., as waste.

I have to thank many gentlemen who have kindly provided me with specimens and data upon which to work, including Mr. C. Bing, who undertook the analytical portion.

PERFUMES AND THEIR VIRTUES.

ON January 30 Mr. Rimmel gave a lecture "On the Sanitary Influence of Perfumes" to the members of the Hairdressers' Guild, assembled at St. James's Hall. Perfumes, he said, besides acting as tonics and promoting, when used as lotions, the circulation of the blood, were antiseptics and disinfectants. According to the doctrines of M. Pasteur, which were now almost universally adopted, infection was due to the agency of organised germs ever present in the atmosphere, which, finding a suitable nest in putrescible materials, grow and multiply and produce decomposition. These germs frequently developed into animalculæ, for which scent was a deadly poison, and thus it acted as a preservative against contagion by destroying one of its main causes. As a modern instance of the preservative effect of perfume, he mentioned the wonderful immunity from cholera which perfumers' workshops enjoyed, both in London and Paris, during the various invasions of the disease. It was probable, but he could not prove, that essential oils dissolved the sulphur and phosphorus, and could consequently neutralise noxious gases as well as destroy dangerous animalculæ. It was certain that they could produce peroxide of hydrogen, which, in contact with the atmosphere, disengaged ozone, the great air-purifier. The essences he chiefly recommended as disinfectants were the eucalyptus, lavender, rosemary, thyme, peppermint, and pennyroyal. Mr. Rimmel dilated

particularly on the virtues of the eucalyptus, which, he said, was an antidote invaluable in cases of fever and bronchitis. Toilet-waters could also be ozonised. Aromatic fumigations were pleasant and useful, and another way of perfuming the atmosphere rapidly and effectually was through a jet of steam laden with odorous particles. In England vegetable remedies had been in great measure superseded by mineral ones, but in France and other Continental countries the rose, the violet, the orange, the lime, and other flowers or leaves were still much esteemed for their curative effects.

The report of this lecture was followed a few days later by a pleasant article in the *Daily Telegraph*, which will probably be read with interest by those of our readers who may not have seen it.

There is indeed nothing new under the sun. A lecture was lately delivered in London on the sanitary use of perfumes; and, had the lecturer so desired, he might have taken for his motto the observation of a no less famous philosopher than the inventor of the deductive method in scientific inquiry. Lord Bacon says:—"They have in physic use of pomanders and knots of powders for the drying of rheums, comforting of the heart, and provoking of sleep." By comforting of the heart, it may be assumed that "the wisest, brightest, meanest of mankind" meant soothing the nerves; and the other statements suggest that our ancestors, when afflicted with influenza and insomnia, sought relief at the perfume's shop, instead of the hands of the physician. Sweet scents have been used time out of mind in England as a safeguard against infection. Cardinal Wolsey, when he went into company, sometimes carried in his hand a "fair orange, the meat or substance of which was taken out, and filled up again with the part of a sponge, whereon was vinegar and other confections against the pestilent airs, the which he most commonly smelt unto, passing among the press, or else when he was pestered among many suitors." This peculiar idea of sanitation undoubtedly is the origin of the bunch of rue and sweet-smelling herbs, placed in front of the criminal dock in Courts of Justice as a preventive of infection from gaol-fever, which has sometimes carried off judge and jury, advocates and all, including the Clerk of Arraigns and the Common Crier. Among the "Orders conceived and published by the Lord Mayor and Aldermen of the City of London concerning the infection of the plague, 1665," is a clause headed "Airing the Stuff": "For sequestration of the goods and stuff of the infected, their bedding and apparel and hangings of chambers, must be well aired with fire and such perfumes as are requisite." Doctors and nurses went about smelling at pocket-handkerchiefs saturated with scent, and for more than a century afterwards the professional outfit of a medical man was not complete without an elaborate walking-stick, the top of which was in the form of a box, containing some supposed perfumed specific against malodorous influences. In process of time the practice excited contempt; and when "the doctor came and smelt his cane," neither he nor his patient was held to gain much advantage from the operation. "Sweete bagges," as they were called, were first brought into this country by Baron de Vere, Earl of Oxford, on his return from a voluntary exile; and he it was who introduced the perfumed leather jerkin and scented gloves, the latter so much affected by Queen Elizabeth. During the preceding reign the Royal family had been content with boxes and wardrobes of aromatic wood, the person charged with their care being called "Mistress of the Sweet Coffers." Autolycus carries pomanders in his pack. So that there is nothing novel, whether or not there may be anything useful, in the sanitary uses of perfumes.

Delightful as are sweet scents, they did not always meet with the approbation either of poets or satirists. Herrick is extremely severe on his perfumed lady:

You say you're sweet : how should we know
Whether that you be sweet or no ?
From powders and perfumes keep free ;
Then we shall smell how sweet you be.

The courtly, gallant author of the "Hesperides" was not unusually sarcastic when writing of his beloved (Enones, Electras, Anteas, and Julias, not to mention a score of others. No doubt the excessive use of perfumes became a vice demanding correction. An early writer on manners complains that the smell of civet, musk, sweet powders, and fragrant pomanders may be felt and perceived from top to bottom of a house "and a stone's-throw off, almost." Even in

summer, when the flowers are fresh and fragrant, the gentlewomen in the country carried posies of flowers in their hands to smell at, "and, which is more, two or three stieked in their breasts beside." Sad as all this was to the satirist, it has survived him, and very nearly, except to a few students, the memory of his "Anatomie of Abuses"; and is, indeed, the fashion of the hour. Some people go further than the old English gentlewomen against whom Philip Stubbes so rudely railed. Was there not a barber in one of John Leech's drawings who, taking his wife for a ride in the country, likened the scent of a bean-field in full flower to the "most bootifully perfumed 'air hoil"? Rare Ben Jonson, sometimes rugged, is considerably more polite than his friend and boon companion, Robert Herrick. Celia ought to have been, and probably was, flattered by the immortal verse:

I sent thee late a rosy wreath,
Not so much honouring thee,
As giving it a hope that there
It could not withered be;
But thou thereon didst only breathe,
And sent'st it back to me;
Since when it grows, and smells, I swear,
Not of itself, but thee.

Catherine de Medicis, used to flattery, and a great lover of aromatic odours, would have been proud of such a testimonial. Even Shakespeare's Cleopatra, with perfumed, purple sails that made the winds love-sick, or the blonde Venetian dames, most beautiful of women, wont to bathe in water from the blue Adriatic, scented with amber, aloes, myrrh, lavender, and mint, might have blushed with pleasure at tavern-haunting Ben's pretty compliment. It is, in a way, more dainty and delicate than Pan's testimony to the sweetness of Syrinx' lips, when in old John Lyly's song he compares the perfume of the reed-maiden's mouth to the fresh winds of Acready.

Some people cannot bear certain scents; consequently not every perfume would be equally useful from a sanitary point of view. Evelyn, in Lord Lytton's play of "Money," satirises the dandy Sir Frederick Blount by quoting Cowper's lines:—

I cannot talk with civet in the room,
A fine pass gentleman that's all perfume.

It will be observed that most of the old writers used the simplest names for the scents they knew, and that "civet" crops up over and over again. Yet we find in a work devoted to the ladies, and published at the latter end of the seventeenth century, mention made of jonquil, narcissus, jasmine, and frangipani, the last being named after the Marquis Frangipani—Louis XIII.'s Maréchal des Armées—the inventor. Imagination has probably not a little to do with the dislike which the aforesaid "some people" entertain for "certain scents." There is a story told of a lady who would not endure the perfume of roses, and grew faint when a friend brought an artificial rose, by way of a jest, into her apartment. Tastes differ in this respect, as in most others. Schiller used to keep a choice collection of decayed apples in a drawer of his writing-table. He liked the perfume, though probably not for sanitary reasons. It is curious to consider that we owe the "Song of the Bell" and the plays of "Wallenstein" and "Mary Stuart" to the decomposed offerings of Pomona. Pliny and many other ancient authorities speak of the curative properties of perfumes. The Egyptians made offerings of sweet odours to the gods, and the part played by scents in the Temple service is minutely recorded in Holy Writ. A smoke from cinnamon and calamus, and the odour of burnt cedar-wood and precious ointment, hung like a cloud above the golden horns and crown of the altar of incense, adding to the awe and wonder of the worshippers from the seven hills and those who came up at Pentecost from all Judea. The Eastern peoples have always used perfumes at their festivals. "The smell of thy garments," says Solomon, "is like the smell of Lebanon. Thy plants are an orchard of pomegranates, with pleasant fruits; camphire, with spikenard, spikenard and saffron, calamus and cinnamon, myrrh and aloes, with all the chief spices." Greeks and Romans both knew, or fancied they knew, the sanitary use of perfumes, and bathed their brows with scent to take away the headache. They scented their wine, their baths, and their garments, and so likewise have most nations of means and culture done, before and since. But, however

interesting it may be to recall past customs and poetic fancies on the subject of scents, it is not so easy to establish the sanitary use of perfumes. The Cry of Outcast London is certainly not for a plentiful supply of pastilles at the expense of the ratepayers, nor that the sewers should be flushed with eau-de-Cologne. Of two scents the stronger will prevail; yet a fever-den that smelt of attar of roses would not be less dangerous on that account to the community. One day and another, the sanitary uses of perfumes have been tried for some three thousand years, and failed; and it is about time to try the sanitary effects of fresh air, and plenty of it. While luxury endures the perfumers may reckon on getting rich, and while the subject of love continues to interest the youth of both sexes—and a few persons not quite young as well—lovely and loveable ladies will be compared with the "last rose of summer" and the "mates of the garden," to the disadvantage of the latter. So, of course, it should be. The polite and gallant lover will still and always sing of his beloved:—

Who notes her teeth and lips discloses
Walls of pearl and gates of roses;
Two leaved doors that lead the way
Through her breath to Araby.

The matter-of-fact sanitary use of perfumes, however, is quite another thing. The lecturer must prove to demonstration the superiority of the sprinkling of lavender-water to good food, warmth, pure air, and exercise, before Parliament will consent to make the distillation of sweet waters part and parcel of the curriculum of the School Board, and the neglect of these a punishable offence.

THE SALE OF POISONS.

THE quantity of medicine now prescribed and used is very much less than formerly. In 1830, for example, at St. George's Hospital the cost for every in-patient's medicine was 16s. 5d. In 1880 it was less than half. Partly this is owing, no doubt, to a cheapening in druggists' wares; but it is also due to the alteration in medical practice. Leeches, for instance, which used to be so frequent, are now seldom seen. Blisters are characterised by some eminent physicians as mere useless torture. Instead of a costly black draught, we have a few pence worth of some pleasant effervescent mixture. The whole aspect of medicine-taking has been altered. Ten years ago, even a new-born baby received a dose calculated to injure it for life; and twenty years ago all children had medicine once a week, whether they wanted it or not. Mrs. Squeers with her brimstone-and-treacle was no exaggeration. Such scenes as Dickens describes in "Nicholas Nickleby" were common, not only in such places as Dotheboys Hall, but in every large boarding-school, when many of us were almost grown up. At the present day, therefore, the apothecary cannot expect the same sale for his simples as formerly; but the public is not on that account the less justified in demanding greater security and greater excellency. The patent medicine system is liable to all kinds of abuse, and should be abandoned. It brings in a trumpery sum, and is a legalisation of quackery. The very name of "Patent Medicine" is a lie. We have by the abortive Act of 1868 acknowledged that something should be done. The principle is admitted. Of course, before 1868, it was open to anyone to object that it is "grandmotherly legislation" to interfere with the sale of drugs. But no such argument will hold now, except, perhaps, with such old ladies and their friends as supported Mr. Stansfeld on a recent occasion. The right of the free-born Briton to make a beast of himself with drink is seriously called in question; but before proceeding to limit the sale of such a comparatively innocuous compound as beer or gin we should endeavour to protect ourselves both from adulterated drugs and also from poisons. Every daily paper contains stories of poisoning. Three have appeared this very week, each of which could have been prevented by proper regulations. A prisoner is poisoned in the very hands of the police. A child is poisoned by a quack. A husband obliterates features he once professed to admire by the use of a little sulphuric acid. The list might be indefinitely prolonged. Where did all these people obtain their poisons? It would be well worth the while of the Pharmaceutical Society to make a list of such cases for, say, three months, and to ascertain in each case, if possible, where the poison was bought.—*Saturday Review.*

THE PROTECTION OF MEDICAL PRACTICE.

IN the February number of the *Nineteenth Century* appears an article by Professor Huxley on "The State and the Medical Profession," in which that gentleman repeats in somewhat more popular style the general conclusions which he advocated as a member of the Royal Commission on the Medical Acts. That part of his article dealing with the reason for, and the limitations of, protective laws for the medical profession has some interest for pharmacists, and we therefore quote it:—

"The first question," he says, "which a plain man is disposed to ask himself is, Why should the State interfere with the profession of medicine any more than it does, say, with the profession of engineering? Anybody who pleases may call himself an engineer, and may practise as such. The State confers no title upon engineers, and does not profess to tell the public that one man is a qualified engineer and that another is not so."

"The answers which are given to the questions are various, and most of them, I think, are bad. A large number of persons seem to be of opinion that the State is bound to take care of the general public, no less than to see that it is protected against incompetent persons, quacks, and medical impostors in general. I do not take that view of the case. I think it is very much wholsomer for the public to take care of itself in this as in most other matters, and, although I am not such a fanatic for the liberty of the subject as to plead that interfering with the way in which a man may choose to be killed or cured is a violation of that liberty, yet I do think that it far better to let everybody do as he likes. Whether that be so or not, I am perfectly certain that, as a matter of practice, it is impossible to prohibit the practice of medicine by people who have no special qualification for it. Consider the terrible consequences of attempting to prohibit practice by a very large class of persons who are certainly not technically qualified—I am far from saying a word as to whether they are otherwise qualified or not. The number of Ladies Bountiful—grandmothers, aunts, and mothers-in-law—whose chief delight lies in the administration of the subordinate provinces of domestic medicine, is past computation, and one shudders to think of what might happen if their energies were turned from this innocuous, if not beneficent, channel by the strong arm of the law. But the thing is impracticable.

"Another reason for intervention is propounded, I am sorry to say, by some, though not many, members of the medical profession, and is simply an expression of that trade-unionism which tends to infest professions no less than trades.

"The general practitioner, whose medical training has cost him a good deal of time and money, trying to make both ends meet on a poor practice, finds that many potential patients, whose small fees would be welcome as the little that helps, prefer to go and get their shilling's worth of 'doctor's stuff' and advice from the chemist and druggist round the corner, who has not paid sixpence for his medical training, because he has never had any. The general practitioner thinks this is very hard upon him, and ought to be stopped. It is perhaps natural that he should think so, though it would be difficult for him to justify his opinion on any ground of public policy. But the question is really not worth discussion, as it is obvious that it would be utterly impracticable to stop such practice 'over the counter,' even if it were desirable to do so.

"Is a man who has a sudden attack of pain in tooth or stomach not to be permitted to go to the nearest druggist's shop and ask for something that will relieve him? The notion is preposterous. But, if this is to be legal, the whole principle of the permissibility of counter practice is granted.

"In my judgment, the intervention of the State in the affairs of the medical profession is to be justified, not upon any pretence of protecting the public, and still less upon that of protecting the medical profession, but simply and solely upon the ground that the State employs medical men for certain purposes, and, as employers, has a right to define the conditions on which it will accept service. It is for the interest of the community that no person shall die without there being some official recognition of the cause of his death. It is a matter of the highest importance to the com-

munity that in civil and criminal cases the law shall be able to have recourse to persons whose evidence may be taken as that of experts, and it will not be doubted that the State has a right to dictate the conditions under which it will appoint persons to the vast number of naval, military, and civil medical offices held, directly or indirectly, under the Government. Here, and here only, it appears to me, lies the justification for the intervention of the State in medical affairs. It says, or should say, in my judgment, to the public: 'Practise medicine, if you like; go to be practised upon by anybody; and to the medical practitioner: 'Have a qualification, or do not have a qualification, if people do not mind it; but if the State is to receive your certificate of death; if the State is to take your evidence as that of an expert; if the State is to give you any kind of civil, or military, or naval appointment, then we call upon you to comply with our conditions, and to produce evidence that you are, in our sense of the word, qualified. Without that we will not place you in that position.' As a matter of fact, that is the relation of the State to the medical profession in this country. For my part, I think it an extremely healthy relation, and it is one that I should be very sorry to see altered, except in so far that it would certainly be better if greater facilities were given for the swift and sharp punishment of those who profess to have the State qualification, when, in fact, they do not possess it. They are simply cheats and swindlers, like other people who profess to be what they are not, and should be punished as such."

THREE YEARS' BOLD ADVERTISING.

A JOURNAL published in Jersey City, U.S., gives the following account of the business established there by Mr. E. S. Wells, the inventor of "Rough on Rats" and other specialties:—"The remarkable energy and business activity displayed by E. S. Wells in the manufacture and sale of 'Rough on Rats' and his other well-known specialties is worthy of notice. It is scarcely three years since he commenced the business in a general way, and in the brief period that has since elapsed he has covered this vast country, and his specialties are known and sold in every city and village from the Atlantic to the Pacific, and from Maine to Texas. In addition, he has found a ready market and an increasing demand for his manufactures in Canada, Mexico, Cuba and all the West Indies, Central America, Venezuela, Brazil, Uruguay, Bolivia, and, in fact, 'Rough on Rats' has made the tour of the globe, having been pushed into Great Britain, invaded Germany, Belgium, and France, with dépôts at Paris and Marseilles, Spain, Portugal, and Egypt, with dépôts at Cairo and Alexandria. Ethiopia has stretched forth her hands for it, and a dépôt is established at Cape Town, South Africa. The trade has found its way into Australia and New Zealand, and a dépôt is established at Sydney; India, with a dépôt at Bombay; China, with dépôts at Hong Kong and Shanghai; and the Sandwich Islands are ready markets for its sale. This almost wonderful record has been accomplished within three years, and now the proprietor 'sighs for other worlds to conquer,' and is determined to send his 'Rough on' preparations to every habitable part of globe. He expends the bulk of his profits in extending his trade, and estimates the trade value of 'Rough on Rats' alone at \$150,000, and of all his articles at \$250,000. He estimates his advertising expenses for 1884 will approximate \$200,000, and says if he should withdraw this expense he could realise a net profit from sales, all over the world, of \$100,000 per annum for five years. These results have been secured by an energetic prosecution and push of his business, and a liberal, but judicious, system of advertising, coupled with an unlimited faith in his preparations. When he retired from the retail drug business he had expended nearly all that he had made in that business in twenty years, and was not worth \$3,000, aside from his trademarks, preparations, and debts. He canvassed Jersey City and New York to secure a partner for the new business, with a capital of \$5,000 or \$10,000, but, finding no one to make the venture, he determined to go it alone on his little capital of money, his pluck and cheek, and the result has been given. In this connection, he relates an incident with great satisfaction. While in the pursuit of a partner, when his prospects

were most gloomy, and bills were pressing him on every hand, he went to a friend, or, as he now qualifies him, a twenty-five years' acquaintance, of whom he had purchased, while in the retail trade, many thousands of dollars' worth of goods, and asked him for a loan of \$200. The party, evidently concluding that his applicant was 'in a hole,' and financially used-up, promptly and decidedly refused the loan. In referring to the incident, Mr. Wells says nothing during his life had hurt him so badly, coming as it did from one with whom he had dealt honourably for so long a period, and who was, and is, a very wealthy man, abundantly able to assist him in his time of need. The manufactory and office at the corner of Grand Street and Summit Avenue are models of system and methodical business work. In his attention to the extensive correspondence, advertising, and bewildering details of his business, Mr. Wells is thoroughly absorbed, and wastes no time, nor uses unnecessary words in the rapid disposition of business affairs. A continuous energetic worker, he manages to find time for amusement and occasional recreation, and for writing on religious and other subjects, but for neither does he, in the slightest degree, neglect the business which he has created and successfully established.

PREPARATION OF GALAZYME, OR ARTIFICIAL KOUMISS.*

THE processes proposed for the manufacture of artificial koumiss, or galazyme, from cow's milk may be classed under three heads:—

1. Fresh cow's milk, containing added cane sugar, fermented with yeast or old koumiss.
2. Skimmed cow's milk, containing added cane sugar, fermented with yeast or old koumiss.
3. Skimmed and fresh cow's milk, containing added cane and milk sugars, fermented with yeast or old koumiss.

In the first acetic acid is formed, the caseine curdles, and, owing to the large proportion of cream, butyric fermentation sets in after a few days, and the product is spoiled. The second produces too much alcohol, and the curdling of the caseine and the butyric fermentation both set in, though at a later date. Churning, to keep the curd finely divided, certainly effects this, but destroys the ferment, and the product is butter-milk. Skimmed cow's milk, diluted with water and more sugar added, is brought nearly to the composition of mare's milk, though with rather less fat. The following process produces a galazyme that compares very favourably with that supplied to pharmacists in this country.

Formula and method of procedure:—

Take of—

						Ounces
Skimmed cow's milk	..	..	..	..	..	150
Water..	..	..	..	..	..	50
Brewer's yeast	..	..	..	..	..	1
Cane sugar	..	..	..	..	..	3
Milk sugar	..	..	..	..	..	5

Dissolve the cane sugar in 20 oz. of water, mix it with 75 oz. of the milk, and add the yeast; the mixture is now to be well stirred and set aside in a warm place (temperature 75° to 80° F.) for nearly six hours, or until small bubbles appear on the surface of the liquid; the remaining 75 oz. of milk, along with the 30 oz. of water (in which the milk sugar has been dissolved), should now be added to the fermenting milk and the whole thoroughly mixed up, strained, and bottled, the corks being well tied down. It should then be kept at a temperature below 55° F. if not required for early use, or if so required it may be ripened in two or three days by keeping it at 60° F.

This method yields a preparation of a perfectly homogeneous consistency, having a sweet and acidulous taste up till the fifteenth day, after which it acquires to a slight degree the taste of buttermilk, which flavour gradually increases as it grows old. It also begins to thicken after the fifteenth day, but even at the thirtieth day the caseine remains finely divided after shaking.

The original paper gives methods and results of analyses of

* Abstract of a paper by Mr. Adam Gibson, read at an evening meeting of the North British Branch of the Pharmaceutical Society, January 16, 1884.

galazyme made by this process compared with an analysis by Wanklyn of full koumiss, 48 hours old, prepared in London. The results show that the difference between the two makes is not greater than would result from using two different samples of milk.

THE STORY OF WORCESTERSHIRE SAUCE.

ALTHOUGH inferior in money-making power to a pill, a sauce, too, can make the guineas roll briskly in; and notably has this been the case with Lea & Perrins' "Worcestershire." A scrutiny of the label will show that it is prepared "from the recipe of a nobleman in the county." The nobleman is Lord Sandys, and Messrs. Lea & Perrins' connection with the sauce came about rather curiously. Many years ago, Mrs. Grey, author of "The Gambler's Wife" and other novels well known in their day, was on a visit at Ombersley Court, when Lady Sandys chanced to remark that she wished she could get some very good curry powder, which elicited from Mrs. Grey that she had in her desk an excellent recipe which her uncle, Sir Charles, Chief Justice of India, had brought thence and given her. Lady Sandys said that there were some clever chemists in Worcester, who perhaps might be able to make up the powder; at all events, when they drove in after luncheon they would see. Messrs. Lea & Perrins looked at the recipe, doubted if they could procure all the ingredients, but said they would do their best, and in due time forwarded a packet of the powder. Subsequently the happy thought struck someone in the business that the powder might, in solution, make a good sauce. The experiment was made, and by degrees the thing took amazingly. All the world to its remotest ends now knows of Worcestershire sauce as an article of commerce; and, notwithstanding that, in common with most good things, it is terribly pirated, an enormous trade is done in it. The profits, I am told, amount to thousands of pounds a year, and I cannot but suppose that liberal cheques, bearing the signature of Lea & Perrins, have passed from that firm to Mrs. Grey, to whom it is so heavily indebted for its prosperity.—*The World.*

Messrs. Lea & Perrins were very clever chemists indeed if they succeeded in making a solution of Mrs. Grey's curry powder; and they were certainly entitled to the credit of originality if they converted a curry-powder flavour into a palatable sauce. We do not think they accomplished either of these miracles; we have understood that they had manufactured for a former Lord Sandys a certain very hot sauce, and that when that nobleman died they were left with a gallon or so in hand. Some time afterwards an old Indian officer asked them for some very hot sauce, and somebody in the place had the happy idea of improving the occasion by disposing of some of the old stock. The officer was abundantly satisfied; he and his friends bought what remained, and more besides, and Messrs. Lea & Perrins began to think there was something in it. For the English palate they reduced the temperature of the product, and its merits and bold advertisement did the rest. We do not guarantee the authenticity of this narrative, but we back it against the picturesque story of our worldly contemporary.

ADMINISTRATION OF CHLOROFORM WITHOUT AN APPARATUS.—M. Bert promises to arrive at a method of administering chloroform mixed with oil which will render the use of an apparatus unnecessary, but will yet be superior to that which consists in the application of a compress saturated or moistened with the anaesthetic administered. He observes that it is barely possible that country practitioners, who are only occasionally called upon to use chloroform, can purchase an instrument costing 8*l.*, and keep it in order. Therefore, at a future meeting of the Biological Society he will describe a method he calls *procédé de campagne* (country method), in contradistinction to the *procédé de ville* (town process), when an apparatus is used.

THE CULTIVATION OF CASTOR-OIL SEED.

THE Revenue and Agricultural Department of the Government of India has published a "Note on Castor Seed," drawn up by Mr. T. N. Mukharji, giving particulars of the method of cultivating the castor-oil plant and preparing the oil. As the plant might be easily cultivated in many of our colonies, we reproduce the salient points for the benefit of our readers there. The plant can be grown on almost any kind of soil, although it loves a sandy loam and will not grow well on clays. It does not require any special care besides the ordinary ploughing and manuring bestowed on cereal crops. In upper India it is sown in March or April, two or three months before the rains, and in July at the beginning of the rainy season. The fruit of the first sowing ripens in November and continues to yield seed till March, that of the second sowing ripens in May. The plants, which grow 8 or 10 feet high, are cut down after having borne for one year, as the second year's produce is inferior in quality and less in quantity.

The seed is soaked for twelve hours in water, and is then sown by hand one yard apart. Twelve pounds of seed are required for an acre. The crop needs no further care except watering if the weather is too dry. The fruits are plucked by hand before fully ripe, and exposed to the sun; when dry the seeds are separated from the outer shell.

The oil roughly prepared by the natives, is very impure, thick, and viscid, and smokes offensively when burnt in lamps. It is also used to anoint shoes, water-bags used for raising water from wells, and other agricultural appliances made of leather. [It is said that rats will not attack leather so treated.] The makers for export sell four qualities:—No. 1, cold-drawn; Nos. 2, 3, and 4, coal-drawn. Messrs. Khettra, Mohan & Bysacks, of Calcutta, have supplied details of the processes they employ. For the cold-drawn, the seeds are cleaned by hand by women. A quantity of the seeds are placed on a board, and are struck once or twice with a mallet, which breaks the seeds to two or three pieces; they are then winnowed, dried in the sun, broken by a crushing-machine, placed in small canvas bags, and pressed in a hand machine. The oil is bleached by exposure to the sun in large open galvanised-iron vats. This also causes the sediment to precipitate. It is then boiled to remove the last traces of moisture. Vegetable charcoal is then added, and the oil is thrice filtered through flannel or blotting-paper.

The coal-drawn No. 1 is made in the same way, except that fire is put beneath the press at the time of pressing, and a mixture of animal and vegetable charcoal is used when filtering. These two qualities are only made to order. Coal-drawn 2 is made as above, but is not filtered; it is largely made and exported. Coal-drawn 3.—The seed is husked by machine; the oil is therefore not so clean. It is not filtered.

The seeds have been found to yield 34 to 35 per cent. of oil. The husk is used for fuel. The oil-cake contains a large amount of phosphates, and is an excellent manure for sugar-cane, potato, or coffee. [A case has been known where it was substituted by mistake for rape cake; several sheep died from the effects of eating it before the mistake was discovered.]

THE HYPOPHOSPHITES WITHOUT SYRUP.—Dr. G. S. Gerhard recommends the following formula:—Calcii hypophosph., potassii hypophosph., sodii hypophosph., $\frac{1}{2}$ gr. j; quiniae hypophosph., mangan. hypophosph., ana gr. $\frac{1}{2}$; ferri hypophosph., gr. $\frac{1}{2}$; strychniae hypophosph., gr. $\frac{1}{12}$; glycerini, m. iij; liq. acid hyposulph., m. iij; aqua, ad fl. 5 j. The addition of a definite amount of hyposulphurous acid prevents the precipitation of at least two of the salts (those of iron and manganese). The solution is clear, slightly fluorescent, and pleasantly acid. This formula is certainly an improvement on the ordinary syrups, the excess of sugar in which often decreases the appetite and deranges digestion. Two minims of acid, phosphoric, dilut. B.P., if substituted for the hyposulphurous acid in the above formula, appear to be equally efficacious in preventing precipitation. If the iron and manganese be omitted, a few drops of dilute hydrobromic acid serve to maintain the other ingredients in clear and permanent solution.—*Phil. Med. Times* and *Med. Times*.

Medical Gleanings.

THE MUSIC CURE.—At the request of the chief medical officer of the military hospitals of Paris, a regimental band has been detailed to play at each of the three hospitals one day in the week for an hour.

THE INTERNATIONAL MEDICAL CONGRESS of 1884 is to meet in Copenhagen on August 10. France, Germany, Holland, and the Scandinavian countries will be well represented, but at present there seems some doubt about the English representation.

TO DISGUISE THE TASTE OF TINCTURE OF IRON, Dr. Haner recommends that tincture of the sesquichloride of iron be mixed with simple syrup, and then with milk. This mixture will not affect the teeth, nor will the styptic taste be apparent.—*Phil. Med. Rep.*

A PLEASANT DISINFECTANT FOR ROOMS.—From an Italian journal, the *Phil. Med. Rep.* quotes that a few drops of the following mixture on a plate will pleasantly disinfect a bed-room:—Camphor, 20; hypochlorite of lime, alcohol, and water, of each, 50; eucalyptus and oil of cloves, of each 1 part. The ingredients must be mixed slowly in a cool, spacious vessel.

PILOCARPINE FOR HICCOUGH.—The value of pilocarpine in the treatment of severe hiccough, to which attention was called some time ago in the *Revue Médicale Chirurgicale*, has been confirmed by the success attending its use in a very severe case which had lasted for three months and resisted all other remedies. Dr. Ruhdorfer administered a subcutaneous injection of the hydrochlorate of pilocarpine (of the strength of 3 centigrammes in a gramm of water) and the hiccough was at once cured.—*Med. Press.*

BROMIDE AND IODIDE OF SODIUM.—Mr. T. J. Hudson, M.B., of Leeds, gives in the *Lancet* (December 22, 1883) his experience of these salts, and compares them, as therapeutic agents, with the corresponding potassium compounds. The chief distinction is that the sodium compounds are far less depressant than those of potassium, have a pleasanter taste, and are less likely to occasion diarrhoea or other bad effects. Mr. Hudson has had opportunities of watching the effects of the drug in a large number of cases at the Leeds Public Dispensary; and his experience goes to show that in cases of pertussis, where the depressing action of the potash on the cerebrum is of advantage, bromide of potassium is preferable to bromide of sodium; also that in cases of aneurism, where it is desirable to continue depressant and sedative action, iodide of potassium is superior to iodide of sodium. But generally, and especially in cases of insomnia, and pain, where opium was not suitable, in epilepsy, hysteria, delirium tremens, syphilis, &c., the sodium salt possessed marked advantages. As sodium combines with rather less bromine and iodine than does potassium, the dose of the sodium salts must be larger in the proportion of about seven to six.

REISSNER'S VACCINE POWDER.—Dr. O. Hager (Berl. Klin. Wochenschrift) says that vaccination with Reissner's powder is the best of all vaccine methods. The technical difficulties in making this powder are only very small, and may readily be surmounted. The pustules of calves, five days after vaccination, are tipped off at the base by pincers, and the part of the pustule on the pincers is scraped with a lancet as long as it yields a fluid lymph. In this manner is obtained a lymph which is very tough, and contains cells of the *Rete Malpighii*, to which Hager gives particular weight. The scraped mass is spread on glass and placed immediately in a sulphuric-acid desiccator, in which it is left one or two days; afterwards the dry powder is ground in a mortar, and the mass thus prepared is kept in the desiccator till it is used. Immediately before use it is moistened with water, glycerine, or a disinfectant. Hager observed that, with an addition of 4 per cent. of carbolic acid or of 1 per cent. of sublimate solution, the powder retained its efficacy. The great advantage of Reissner's powder is the ease with which it is prepared. Every doctor in the country can prepare his own supplies of lymph. The cost is also very small, as from one calf from 2,000 to 3,000 children can be vaccinated.

SANTONIN IN GLEET.—Dr. William Anderson, in the *Lancet*, relates that, having treated a patient for worms by santonin, he found that the santonin he gave not only killed the worms, but at the same time cured a long-standing gleet. The formula he recommends is:—Santonin, saechari lactis, of each gr. v.; tere bene et ft. pulv. To be taken twice a day, fasting, in milk.

BOG-MOSS AN IMPROVEMENT ON COTTON WOOL.—Some time ago the virtues of dried black peat as an antiseptic application to wounds were highly extolled by Dr. Neuber, of Kiel. Probably this antiseptic action is due, at least in part, to the extraordinary power of absorption possessed by the bog-moss of which, as is well known, peat is almost entirely composed. Bog-moss (*sphagnum*) has a peculiar structure, the leaves consisting in considerable part of large colourless cells, from which the contents have disappeared; these empty cells communicate with a series of similar cells arranged in layers on the stem. It is owing to this capillary network that the bog-moss is able to raise the water of the bogs, in which it grows in large quantity, to the topmost leaves, through a height, sometimes, of several feet. There are several species of *sphagnum*, but all are closely allied in structure and function. Carefully gathered and thoroughly dried, bog-moss forms a soft, highly absorbent material, very suitable, it is said, when made into pads, for use in cases where copious discharge would otherwise necessitate frequent change of dressing, since it can absorb eight times its original weight of fluid without becoming too moist. Though not an antiseptic dressing, it might conceivably be of great use when antiseptics cannot be obtained. In war, for instance, a large pad of this soft absorbent material might furnish an excellent first dressing. The only point to be attended to in its preparation seems to be that it must be dried at a low temperature, so as not to destroy the peculiar structure upon which its absorbent power depends.—*Brit. Med. Journ.*

Miscellaneous Formulae.

SOAP-POWDERS.—

Pearl Soap-powder.

	Parts
Curd (hard) soap and powdered	4
Sal soda	3
Silicate of soda	2

Made as dry as possible, and intimately mixed.

Borax Soap-powder.

	Parts
Curd (hard) soap, in powder	5
Soda-ash	3
Silicate of soda	2
Borax (crude)	1

Each ingredient is thoroughly dried, and all mixed together by sieving.

London Soap-powder.

	Parts
Yellow soap	6
Soda crystals	3
Pearlash	1½
Sulphate of soda	1½
Palm oil	1

These ingredients are combined as well as possible without any water, and they are spread out to dry, and then ground into coarse powder. From the above specimen recipes one may infer that soap-powders may be multiplied and varied *ad infinitum*. They are adapted to hard waters, as their excess of carbonated alkali neutralises the lime they may contain.—*St. Louis Druggist.*

TO PERFUME NOTE-PAPER.—Get a few quires of blotting-paper, and sprinkle the sheets with the perfume desired; then put them under a weight until they become dry. When dry, put note-paper, envelopes, &c., between the sheets, and place them under a weight for a few hours. When removed they will be found perfumed. The blotting-sheets may be utilised again, and can be made to retain their perfume for a long time by keeping them free from exposure to air.

ARTIFICIAL WINE.—M. Yvon, in the *Journ. de Pharm. et de Chim.*, quotes from a circular issued by a business house giving a receipt for "an excellent wine, in no respect inferior to natural wine, and deprived of all its injurious qualities." The formula runs thus:—In a barrel of 114 litres capacity, put 8 to 12 kilos. dry raisins, 10 to 14 kilos. glucose diluted with a little water, and 1 litre of vinegar; add 1 litre of "flavouring mixture," and about 400 grammes of beer-yeast. Fill the eask with water, of which some 6 to 8 litres should be boiling, so as to raise the whole to a temperature sufficient to permit fermentation. When the wine is finished colour with a powder which is supplied.

M. Yvon says the powder consists of the residues of the fuchsine manufacture, and that the "flavouring mixture" is an aqueous solution of tartaric acid and tannin, with an artificial essence.

SACHET POWDERS (from the *Druggists' Circular*).

Violet.

Powdered orris-root	..	..	..	..	24 oz.
Gum benzoin	..	..	..	..	3 "
Tonka bean	..	..	..	..	4 drachms
Oil of bitter almonds	..	..	..	..	6 drops
Extract of cassia	..	..	..	..	6 drachms

Musk.

Powdered orris-root	..	..	..	..	2 lbs.
Grain musk	..	..	..	..	30 grains
Carbonate of ammonia	..	..	..	..	10 "
Oil of rose	..	..	..	..	20 minims

Lavender.

Lavender flowers	..	..	..	..	8 oz.
Dry thyme	..	..	..	..	4 drachms
Dry mint	..	..	..	..	2 "
Cloves	..	..	..	..	2 "
Oil of lavender	..	..	..	..	30 minims
Tincture of ambergris	..	..	..	..	1 drachm

Patchouli.

Powdered orris-root	..	..	..	..	1 lb.
Patchouli leaves	..	..	..	..	8 oz.
Oil of rose	..	..	..	..	30 drops
Oil of patchouli	..	..	..	..	66 drops

AROMATIC ANTISEPTIC TOOTH-SOAP.

Castile soap	..	..	..	..	1 lb.
Pumice stone in fine powder	..	..	..	..	1 oz.
Thymol	..	..	..	..	20 grains
Oil of wintergreen	..	..	..	..	30 drops

Shave the soap into ribbons, beat it into a paste with a little water, and add first the pumice stone, and lastly the thymol and oil of wintergreen dissolved in a small quantity of alcohol.—*American Druggists' Circular.*

TEETHING SYRUP.—A formula for a soothing syrup without opium is desirable for many forms of restless and nervous irritation in infants, where the head is preternaturally hot, with wakefulness. Constipation, if it exists, should be removed by mild laxatives. The following might be indicated:—

Sodium bromide	..	..	..	..	10 gr.
Fluid extract celery	..	..	..	..	10 gtt.
Essence of anise	..	..	..	..	10 "
Simple syrup	..	..	..	..	10 ½

M. Sig.: One-half to one drachm, according to age, to be taken at intervals of one-half to two hours.

The addition of deodorised tincture of opium in quantities adapted to children's doses would render the syrup much more powerful in producing sleep. But if a preparation of opium is substituted in the formula, the person in charge of the patient should be made so familiar with the nature of the remedy as to avoid possibility of injurious effects or dangerous results.—*Weekly Drug News.*

GINGER LIQUOR.—Digest 60 parts of coarsely-powdered ginger, 2 parts of cinnamon, 1 part each of cloves and vanilla with diluted alcohol for eight days. Then add as much sugar and spirit as may be agreeable. About 1 to 2 per cent. of ginger gives a pleasant flavour.

Dentistry.

LICENTIATE IN DENTAL SURGERY.

AT West Ham Police Court, on February 6, Mr. Phillips, the magistrate, gave judgment in the case of *Canton v. Holford*, in which Thomas Constantine Holford, a chemist and dentist, practising at 342-4 High Street, Stratford, was summoned by Frederick Canton, the hon. secretary of the British Dental Association, for having used the initials "L.D.S." being the distinction of a qualification or certificate in relation to dentistry or dental surgery, which he did not possess, contrary to Section 4 of the Dentists Act, 1878, 41 and 42 Vic, cap. 33, the maximum penalty imposable being 20*l.* In November, 1878, the defendant applied, under the Dentists Act, for registration as an "L.D.S., Ont.," but registration was refused. In April, 1879, however, he applied for and obtained registration as having been in practice before July 24, 1878. It was now proved that in November, 1883, he had described himself as "L.D.S." simply. Fraud was not alleged by the prosecution, who admitted that the defendant was a licentiate of dental surgery of the Medical College, Ontario, but they contended that by the use of the simple "L.D.S." without the affix "Ont.," or "Ontario," Mr. Holford had made himself amenable to the Act. Mr. Phillips gave judgment at great length. Having reviewed the circumstances of the case, he said he had come to the conclusion that the title "L.D.S." simply was one which would only be granted by the medical authorities in this country, and that the defendant, therefore, had committed an offence within the meaning of the Act in using the designation of a qualification which he did not possess. He thought the defendant would have been within his right if he had used the letters "L.D.S., Ontario," but having omitted the addition, he had committed an offence. Taking into account, however, that this was the first case under the Act, and having regard to the fact that defendant was an "L.D.S.," though of Ontario, he should not impose the full penalty of 20*l.*, but a fine of 2*l.*, and the usual costs.

In connection with the above, we may do some service by giving particulars of the requirements of the various colleges before granting the L.D.S. diploma.

Persons not registered as dentists must (1) pass a preliminary examination as set forth by the Medical Council; (2) serve a three years' apprenticeship with a duly qualified dental practitioner; (3) attend a curriculum of four years' study, including lectures and hospital practice. If the apprenticeship is served after a pupil has passed the preliminary examination a three years' curriculum is sufficient. N.B.—All the examining boards require this curriculum from persons not on the register.

Dental Diplomas sine Curriculo.

These are granted to registered persons under conditions as set forth below:—

Royal College of Surgeons of England.—Candidates must give evidence of having been engaged in the practice of dentistry prior to 1859, the date of the Charter of the College. Fee 10*l.* 10*s.*

Royal College of Surgeons in Ireland.—Candidates must be registered; must have been engaged in the practice of dentistry for five years; must produce certificates to this effect signed by two members of the College of Surgeons and two licentiates in dental surgery, and certificates of moral conduct. The examination includes dental anatomy, physiology, and surgery; general anatomy and physiology of the head and neck; surgery, medicine, and *materia medica*; and mechanical dentistry. Fee 10*l.* 10*s.*

Royal College of Surgeons, Edinburgh.—Candidates must have been in practice before 1878, and must produce certificates of moral and professional character. The examination is written and oral. Candidates must have been registered previously. Fee 10*l.* 10*s.*

Faculty of Physicians and Surgeons, Glasgow.—As last. Fee 10*l.* 10*s.*

No person may assume the title of dentist or any title implying that he is qualified to practise dentistry unless registered, under a penalty of 20*l.*, nor can an unregistered

person recover his charges for any dental operation, attendance, or advice. The control of the Register and the supervision of the profession are vested in the Medical Council. Unlike the provisions of the Medical and Pharmacy Acts in respect of registration, no person can register under the Dentists Act who did not apply for registration on or before August 31, 1879.

Under the Medical and Pharmacy Acts a man may register at any time provided his proofs are forthcoming and are satisfactory.

A SURGEON AND PHYSICIAN REFUSED REGISTRATION.

The British Medical Journal mentions the case of a M.R.C.S. (London) and L.R.C.P. (London), who lately desired to have his name entered on the Dentists' Register and was refused. The Dentists Act provides that no person shall recover fees for dental operations unless he be registered under the Act or is a legally-qualified medical practitioner. This gentleman may therefore practise dentistry, as, in fact, anybody may, and he, as a medical practitioner, may recover fees for dental operations; but, in consequence of his not having applied for registration at the proper time, he may not now call himself a "dentist," although the diplomas which he holds cover the ground of the dentist's education, as the greater includes the less.

WHITE FILLINGS.

THERE are several white fillings in use by dental surgeons which contain neither mercury nor silver. *The Scientific American* says they are made by mixing oxide of zinc with impalpable glass powder in small proportion, and just before using, when the cavity of the tooth is prepared, a small quantity of deliquescent chloride of zinc is placed on a glass slab, and enough powder added to make a thick paste, mixed rapidly. It "sets" very quickly, and forms a good temporary stopping. It is slightly irritating to the "nerve" of a tooth, and should not be inserted directly in a cavity in which caries has far advanced without placing a little solution of gutta-percha in chloroform over the region of the pulp. But a less irritating filling, according to the *Lancet*, is made by mixing the same powder of oxide of zinc with pyrophosphoric acid; this is a more permanent white stopping.

A PROCESS FOR THE GRADUAL REMOVAL OF TEETH has been publicly brought before the Academy of Sciences, in Paris, by Paul Bert. Its public recognition seems to be due to a Geneva dentist, although the fact has been for some time past recognised. The process is as follows:—Place over the tooth to be extracted a piece of perforated rubber, the perforation being of such a size as to make the rubber fit the tooth tight, press it down well on the tooth, and allow it to remain there; after four or five days the tooth comes out of itself. A short piece of rubber-tubing answers the purpose.

THE DOCTOR AND THE DRUGS.—This is how the anecdote is told by the Portuguese professor who tells us of English and how she is spoke:—

"A physician eighty years of age had enjoyed of a health unalterable:—Their friends did him of its compliments every day: 'Mister Doctor, say they to him, you are an admirable man. What you make them for you to bear you as well? I shall tell you it, gentlemen, he was answered them, and I exhort you in same time at to follow my example. I live of the product of my ordering without take any remedy who I command to my sick.'"

A GERMAN INSECTICIDE.—*The Répertoire de Pharmacie* quotes, upon the authority of Dr. Vessler, a recipe for an insecticide which is said to have a great reputation among German horticulturists. It consists of soft soap, 4 parts; extract of tobacco, 6 parts; amylic alcohol, 5 parts; methylic alcohol, 20 parts; water to make 1,000 parts. The extract of tobacco is made by boiling together equal parts of roll tobacco and water for half an hour, adding water for what is evaporated. The soft soap is first dissolved in the water with the aid of a gentle heat, and the other ingredients are then added. The mixture requires to be well stirred before it is used, and is applied by means of a brush or garden-syringe fitted with a small rose.

Foreign and Colonial.

PHARMACIENS IN RUSSIA.—A law of 1872 fixes the proportion of pharmaciens to population as 1 to 7,000 in district towns, 1 to 10,000 in Government towns, and 1 to 12,000 in the two capitals.

A NEW MONTHLY JOURNAL, entitled *L'Univers Pharmaceutique et Medical*, has been established in Paris, under the control of M. A. Gaboriau. It appears to aim at providing a rather lighter literature than is given in the older French journals of pharmacy.

AN AMERICAN UNIVERSITY OF MEDICINE is proposed to be created by a Bill introduced into the United States Senate, which asks for \$1,000,000 in endowment, and \$100,000 for building expenses. It is proposed to appoint allopathic, homeopathic, and eclectic professors.

A PHARMACOPEIA FOR THE UNITED STATES.—A Bill has been introduced into the United States Congress by Mr. Randall, of Pennsylvania, to provide for the publication of a national Pharmacopeia. The Pharmacopeia now in use in America has no legal authority, and we presume it is the object of this Bill to give it such a status.

THE VICTORIAN TARIFF COMMISSION have made the following recommendations, among others:—That perfumery be charged 20 per cent.; preparations of opium, 2s. 6d. per lb., if not more than 10 per cent. of opium; above 10 and not exceeding 25 per cent., 10s. per lb.; above 25 per cent., 20s. This rate would not apply to proprietary medicines containing opium, which are separately provided for. All proprietary medicines, 25 per cent. if not containing spirit; if containing spirit, 20s. per gallon extra.

THE FALSIFICATION OF QUININE IN PARIS.—We reported at some length in July last the trial of Henri Constant Lacombe before the Tribunal Correctionnel de Paris, who was charged and convicted of the crime of having supplied to the Pharmacie Centrale des Hopitaux a fraudulent mixture of cinchonidine with quinine. Lacombe was sentenced to imprisonment for one year, a fine of 50f., and to pay for the insertion of the judgment in twelve journals. We afterwards stated that Lacombe had appealed. The *Gazette des Tribunaux* of January 20, 1884, reports that the Cour de Cassation has rejected the appeal, and Lacombe, therefore, now enters upon his punishment.

PRESCRIBING CHEMISTS IN AUSTRALIA.—The *Australasian Medical Gazette* of December, 1883, says, somewhat spitefully:—“We have before us a letter written by Messrs. Elliott Brothers, wholesale druggists, of Sydney, to a chemist in a country town of New South Wales. We extract from it the following passage, which speaks for itself:—

“Individually we are of opinion that doctors in country towns are not to be depended upon, and that it is better for a chemist to ingratiate himself with the public and to try and obtain a name for himself as a good prescriber. Medical men, as a rule, are extremely narrow-minded, and think that chemists should obtain a bare livelihood.”

LAWS AGAINST POISONOUS PAPERHANGINGS, &c.—Early last year, at the instance of Mr. Ernest Hart, chairman of the National Health Society, Lord Granville addressed a circular to Her Majesty's representatives at European Courts and Washington requesting information respecting the legislation or municipal enactments in force in foreign countries having for their object the limitations, restrictions, or safeguards in the manufacture, use, or sale of arsenical and other poisonous pigments used in tinting wall-papers and textile fabrics. The answers to the circular have now been received, and have been issued as a Parliamentary paper. It appears that the Austrian penal code strictly prohibits the application of mineral colours containing copper, arsenic, lead, zinc, and other poisonous metallic preparations to stuffs destined to come in contact with the human body; in France there are no special regulations on the subject; in Germany the use of poisonous colours for paperhangings and wearing apparel is forbidden throughout the Empire; there seems to be no legislation on the subject in the United States; 33 out of the 46 Governors of States and Territories stated that there was no State legislation or municipal enactment bearing on the matter.

Obituary.

ANDERSON.—On November 6, 1883, Mr. James Anderson, pharmaceutical chemist, 111 High Street, Musselburgh, Aged 59 years.

BALFOUR.—Dr. John Hutton Balfour, Emeritus Professor of Medicine and Botany in the University of Edinburgh, Regius Keeper of the Royal Botanic Garden, and Queen's Botanist for Scotland, died on the 11th instant at Inverleith House, Edinburgh. He was born in 1808. Dr. Balfour took the degree of M.A. in the University of Edinburgh, and that of M.D. in 1831. From 1841 to 1845 he was Professor of Botany in the University of Glasgow. He was a member of many learned societies both at home and abroad, and was the author of a variety of books and articles on botany, including the “Manual of Botany” and “Botany and Religion.”

ELLIMAN.—We record with much regret the death of Mr. Samuel Francis Elliman, of the firm of Elliman, Sons & Co., of Slough, manufacturers of “Elliman's Embrocation.” Mr. Elliman was riding with a friend, on January 25, across Englefield Green, a few miles from Slough, when his horse suddenly took fright, and bolted, and after a while he (Mr. Elliman) seemed to suddenly lose control of him, and was thrown violently to the ground, causing a fracture of the skull, and death within a few minutes. Mr. S. F. Elliman was 35 years of age. In youth he had been apprenticed to Mr. R. Griffith, chemist, of Slough, and afterwards served as an assistant at Scarborough. Subsequently he lived in Florence and Paris, and was in the latter city until the siege commenced in 1870. Meanwhile, by the death of his father, the management of the business of “Elliman's Embrocation” had devolved on himself and his brother James. After a course of study at the School of Pharmacy in Bloomsbury Square he passed his examinations, and obtained his certificate as a pharmaceutical chemist. His business left him a considerable share of leisure, most of which he devoted to study. He attended courses of lectures at the School of Mines, courses by Professor Huxley on biology and physiology, and courses on veterinary anatomy at Lyons. In all he undertook he excelled, and we have seen a very remarkable collection of photographs, showing the anatomy of the horse, taken by him, which was subsequently presented to Professor Flower. Only two days before his death he exhibited and explained a human skull at a Scientific Soirée at Windsor, imparting his own enthusiasm to his audience. He was highly esteemed in Slough, where he filled several public offices, and by his intimate friends he was greatly beloved. Large numbers of his townsmen and friends attended his funeral, and throughout the town business was generally suspended, as a mark of respect, during the burial ceremony.

LITTLEWOOD.—On Jan. 30, at Sutton-in-Ashfield, Mr. Samuel Littlewood, chemist and druggist. Aged 52. Mr. Littlewood succeeded his uncle in the business, which he carried on till his death. Both in his business relationships and in local affairs, in which he took a prominent part, Mr. Littlewood had secured the respect of all with whom he came in contact.

LOCKWOOD.—On January 10, Mr. G. Alfred Lockwood, chemist and druggist, 30 South Street, Moor, Sheffield, after a long and painful illness lasting for five months. Aged 52.

SUMNER.—On Jan. 24, at 81 Ashville Terrace, Coventry, James Sumner, for 25 years the highly-respected representative of Evans, Lescher & Webb, London, deeply regretted.

WALTON.—On Jan. 15, at his residence, 437 City Road, Manchester, Mr. William Walton, pharmaceutical chemist, of pneumonia. Aged 42.

MARRIAGE.

On Jan. 17, at St. Michael's, Newquay, Cornwall, by the Vicar, the Rev. J. B. Eade, William Henry Francis, of 5 Coleman Street, London, to Ellen Eliza, only daughter of the late John Thomas, of Highbury, and niece of W. S. Northey, Esq., of Rocklands, Newquay.

it can hardly be doubted that the somewhat cumbrous and much-meaning Bill drawn up for their acceptance by the Pharmaceutical Council has had a repellent effect on Lord Carlingford. To steer that Bill through Parliament, he would have to coach himself up in all the intricacies of Bloomsbury-square ideas about divisions of examinations, membership and associateship, Preliminary, Minor, and Major examinations and their effects, none of which was reckoned for when the advice of the Pharmaceutical Society in reference to the sale of poisons was asked for. It is not unlikely that his lordship has little inclination to acquire all that extra knowledge.

That there is a public demand for some legislative action in regard to the sale of poisons is not to be disputed. Apart from any idea of protecting any particular trade or profession, it is felt to be a necessity that the trade in poisons should be rigidly confined to persons who have acquired a knowledge of their nature. We have over and over again pointed out how insufficiently the drafted Bill proposes to meet this demand, by leaving free for everybody's handling one of the most deadly of all existing poisons. Carbolic acid, which is responsible for nearly one-fifth of all recorded poisonings, and for a much larger proportion of the purely accidental cases, is to be treated as if it were not a poison at all; it is to be only "poisonous." The public want some more protection than this. The plan proposed would be merely delusive. Then, too, it is not unlikely that the Government would be asked by some Members of Parliament to insist on certain arrangements in chemists' shops which should help to guarantee the public against accidents. That is a point on which the Pharmaceutical Council have given the Government no advice. It is quite understood that the best guarantee to the public lies in the competence and care of the dealer himself; but laws are not sought to restrain or restrict such an one; and, unfortunately, it cannot yet be claimed that all chemists are careful and competent.

The case against poisonous patent medicines being sold anyhow and by anybody is complete, but the attempt to restrict the sale of such is not by any means a simple matter. The proposals in the draft Bill seem complicated, and have already occasioned a lively protest, but we cannot perceive any other way whereby an effective control over their sale can be acquired. Whether Mr. Warton has discovered any more practical process remains to be seen.

A Bill dealing simply with the sale of poisons and of poisonous patent medicines, with the addition, perhaps, of a clause asking boldly for the rectification of the Pharmacy Act where it was proved defective by the decision of the House of Lords would have had the attention of the Government long ere this, and would probably have been passed last year. We have always maintained that it was a mistake to load a Bill which, it was hoped, the Government would take charge of with a number of clauses having relation only to the internal affairs of the Pharmaceutical Society, in which neither the public nor, to any great extent, chemists themselves have any interest.

The anticipations of legislative protection, which some pharmacists seemed to think as good as won last autumn, are not yet in process of gestation, to say nothing of birth. The strong common sense of Professor Huxley's remarks, which we quote elsewhere, concerning the protection of the medical profession, will commend itself to most pharmacists; and his views would be the views of all politicians if a definite clause for the protection of pharmacists were put forward. Restrictions on the sale of poisons are not imposed with any view of protecting certain sellers. The only reason for legislative enactment of such is that which causes the law to protect the public generally from the dangers attendant on certain occupations and processes.

SUPPRESSING THE PATENT-MEDICINE TRADE.

A MEMBER of the United States House of Representatives, a Mr. Tully, of California, has submitted to the Legislature, "A Bill to prevent the use of the United States mails to advertise noxious and dangerous medicines, foods, and compounds." According to the latest advices the Bill was still under the consideration of the Postal Committee, we presume with a view of resolving whether it should or should not be introduced with Government sanction. He aims to correct the admitted evils of the patent-medicine business by enacting:—

That from and after six months after the passage and approval of this Act, no advertisement of any kind or nature or advertising device of any medical preparation, compound, or prescription, or any punch, bitters, cordial, or similar compound or preparation to be used as medicine or mixed with food, liquor, wine, or any other substance used as a beverage or as food or medicine, shall be placed in or carried by the mails of the United States until the exact formula for the preparation thereof, together with a sample of the same, be placed in the Patent Office of the United States, with a sworn affidavit of the correctness of such formula and the genuineness of such sample, and the examination thereof by the proper officers designated therefor in said Patent Office, and the issue of a certificate that said substance is not noxious or dangerous to health.

Sec. 2. That any person applying for such certificate as is named in the preceding section shall, at the time of making such application, pay the sum of \$20, and no such certificate shall issue unless, upon examination of the formula and sample so filed as aforesaid, the same shall be found to be innocuous and not dangerous to life or health.

Sec. 3. That any person who shall violate any of the provisions in sections 1 and 2 hereof, shall, upon conviction, pay a fine of not less than \$100, and not more than \$1,000 for each offence, or suffer imprisonment in the penitentiary for not less than six months nor more than one year, or both, in the discretion of the court, except in case any persons shall file a false affidavit with application for a certificate, and in such case such filing shall be deemed perjury, and punished as such; and the circuit courts of the United States shall have exclusive jurisdiction of all prosecutions under this Act.

Sec. 4. That there shall be employed in the Patent Office a sufficient number of expert persons to make proper examinations of all applications for such certificates.

Mr. Tully, it will be seen, strikes at the patent-medicine dealers through the newspapers. He does not propose to pass a law to compel the registration of the formula of every medicine which is to be offered to the public; he perceives how impossible it would be to carry out such a law; but he would refuse all postal privileges for advertising matter referring to medicines whose composition should not be made public; and he would likewise refuse such privileges to newspapers which should contain the advertisements of those unregistered medicines.

Mr. Tully's scheme is certainly an ingenious one. An Asiatic or European despot would simply order that no person should sell or buy medicines unless the composition of such medicines should have been previously registered and published at a certain bureau, if he thought such a course desirable for the good of his subjects. But American citizens have to be dealt with in a rather more ceremonious manner. Mr. Tully does not dare to prescribe that every patent-medicine maker shall give his formula to the world; he leaves that to his free will; but he says, unless he does make such a publication, the Government will simply boycott him and all newspapers which admit his advertisements. Of course the blow, if struck, would be no less fatal than if it were more direct. No national patent-medicine trade could be built up without the aid of the mails and the newspapers; and the newspapers, on the other hand, much as they owe to the patent-medicine men, would probably have to cast them overboard if it came to choosing between them and the Post Office. Certainly the scheme is plausible, if not feasible.

But it is not likely to be carried. It is a distinctly dishonest proposal, because it is an attempt to inflict penalties before obtaining a conviction; and, besides, it would be very unjust to the makers of good specialties, who would never have been attacked by the Government if it had not been for the invasion of imitators. In an able but

lengthy reply to the Bill the American Proprietary Association urge, with a great deal of force, that, if to suit certain eager reformers the privileges of the mails are to be refused to them, other sections would try to use the same method of injuring trades which they oppose. The temperance class might as reasonably demand the refusal of the privilege to wine dealers, the anti-gamblers would wish to upset the playing-card makers' business, and so everybody would have to wait before he bought or sold anything until some official at Washington had decided whether it was good that such a transaction should take place. We note the proposal chiefly to show the difficulties which lie in the way of those who talk so glibly about suppressing the patent-medicine trade.

CHEMISTS ACCORDING TO THE CENSUS.

THE third volume of the census tables of England and Wales, lately published, gives particulars respecting the occupations of the inhabitants of these countries. The total population of England and Wales in 1881 was 25,974,439, the females numbering about 600,000 more than the males. We may remark in passing that 141 of these (44 males and 97 females) are returned as 100 years of age and upwards. The occupations of these people are stated in six classes, namely:—(1) Professional (including Government service, army, navy, &c.); (2) Domestic; (3) Commercial (limited to mercantile, banking, railroad, and such-like work); (4) Agricultural; (5) Industrial (including all trades and manufactures); and (6) Indefinite and Non-productive. It may be interesting to show the numbers thus classified:—

	Males	Females	Total
Professional	450,955	196,120	647,075
Domestic	258,508	1,545,302	1,803,810
Commercial	960,661	19,467	980,128
Agricultural	1,318,344	64,840	1,383,184
Industrial	4,795,178	1,578,189	6,373,367
Indefinite	4,856,266	9,930,619	14,786,875

Order 14 of Class 5, described as "persons working and dealing in chemicals and compounds," numbers altogether 43,015 persons, who are subdivided as follows:—

Colouring matter—	Males	Females
Dye, paint, manufacture	1,638	389
Ink, blacking, colouring substance, manufacture	1,077	157
Explosives—		
Gunpowder, gun-cotton, explosive substance, manufacture	657	122
Fusee, fireworks, explosive article, manufacture	950	1,887

Drugs and other Chemicals and Compounds.

	Males	Females
Chemist, druggist	18,369	631
Manufacturing chemist	12,843	1,128
Alkali manufacture	2,143	7
Drysalter	920	97

It will be understood, of course, that the 19,000 chemists and druggists enumerated include employés as well as proprietors, but it is not clear whether wholesale druggists and their employés are included, or whether they fall under the head of merchant in the commercial class. But it may be interesting to quote the division of the 19,000 chemists and druggists in ages:—

	Males	Females
Under 5 years	0	0
5 to 15 years	267	17
15 to 20 years	3,283	133
20 to 25 years	2,777	100
25 to 45 years	7,905	194
45 to 65 years	3,551	146
65 and upwards	585	41

There were 15,091 male and 25 female physicians, surgeons,

and general practitioners; 3,583 male and no female dentists; 5,992 male and 64 female medical students and assistants; 2,646 female mid-wives; 1,972 males and 35,175 females classified under "subordinate medical service." Of the chemist and druggist class, it may be added, London enjoys the services of 3,762 of the males and 162 of the females.

MILK AND DISEASE.

"ANOTHER TYPHOID EPIDEMIC FROM MILK" is the heading of a note in a recent issue of the *Lancet*. The alarming frequency of such an announcement is a matter of much greater national concern than many other topics which occupy an immeasurably greater share of public attention. It is no longer a suspicion, nor even a creed; it is an overwhelmingly-proved fact, that milk is the medium whereby a vast amount of this insidious disease is spread among the community. That the danger is a preventable one is almost equally beyond question. The poison does not lurk in the milk itself, but in the water which, somehow or another, gets added to it. The milk-dealers have a theory that water can only get mixed with milk in the necessary operation of washing the cans, and, in view of the law of libel, the public have to tacitly accept that hypothesis. That water does find its way into milk by other means is, however, abundantly proved, and it has become a question for the Legislature whether, having regard to the extent of the fraud and its horrible risk, the present rate of punishment sufficiently meets the evil. The interference of the Legislature with trade is not to be desired except when the public safety or advantage evidently demands it; but just as a Government control over the trading in explosives, poisons, and alcohol is maintained (and in the last-named case it is advocated for other than revenue reasons), so it would be justifiable in the case of milk. A licensing system, with stringent penalties against adulteration, could, no doubt, be made to work to the benefit of commercial morality and, what is more to the point, to the diminution of deadly disease.

THE *Union Pharmaceutique* publishes a curious document, the authenticity of which is guaranteed by the Mayor of Langres (Haute-Marne), giving extracts from what we may call the parish register of that town, and showing that from 1657 to 1832 six pharmaciens of the name of Baudot, descending in regular succession from father to son, occupied the same pharmacy. The history may go back farther and extend nearer this way, but the record published does not indicate. ■ ■ ■

THE English chemical manufacture, as she is understood in France, must be a modest sort of business, if magnesia may be taken as a sample. According to M. Ferrand's "Aide-Mémoire de Pharmacie," third edition, 1883, page 179, carbonate of magnesia is prepared in England by precipitating the water of Epsom springs by carbonate of soda. [En Angleterre, on précipite par le carbonate de soude l'eau de la source d'Epsom.] The author does not seem familiar with the other equally well-established fact, that the supply of British iron is obtained from the Cheltenham chalybeate springs. ■ ■ ■

"AN English physician states that he has known one of his prescriptions to be made up without his order to his patient more than 300 times. He was paid for only one prescription." So says one of the American medical journals. It may astonish that hungry English physician and his friends to learn that other tradesmen have a similar grievance. Our tinker says he sold a saucepan which has since been used 300 times, but that he was only paid for it once. He, however, we are pleased to say, has the grace to be thankful that he was paid that once; why should physicians expect to be paid 300 times over for the commodities they have to sell? ■ ■ ■

A BILL has been drawn up for submission to Parliament, the object of which is to provide for the dissolution and re-incorporation of the Institute of Chemistry with extended powers. Admission to the Institute is to be by examinations held from time to time, and the members will be divided into Fellows and Associates, distinguished by the letters F.I.C. and A.I.C. respectively, the assumption of which initials by unauthorised persons is to be punished by a fine of 20*l.* The governing body is to consist of a council of thirty-five members, including a president, six vice-presidents, and a treasurer. The first officers will be those holding office in the old Institute at the time the Act comes into operation. Power is taken to provide a library, a hall, and a laboratory for the use of the members, on any resolution in favour thereof being adopted by the members in meeting assembled.

* *

THREE New York journals in the drug-trade interest have formed a coalition which, without affecting their distinctive characteristics, is probably intended to work some economy by a single management. The parties to this coalition are (1) our friends of the *Druggists' Circular*, which is described as the "practical pharmaceutical publication" of the group; (2) the *Oil, Paint, and Drug Reporter*, the organ for the wholesale and heavy trade interests; and (3) the *Weekly Drug News*, "a trade newspaper for the retail druggists." Number 2 of this coalition was the paper which, after a career of violent opposition to the Standard Oil Company, fell under influences which, to say the least, moderated its unchristian feelings towards that redoubtable corporation, and, having coalesced with their alleged organ, formed a company which has successfully worked the publication since, and which is the company which now assumes general direction of the trio of journals already alluded to.

* *

A BILL entitled Sale of Spirits (Mixed Traders) has been introduced into the House of Commons by Mr. Kennard, Viscount Folkestone, Sir H. Selwin-Ibbetson, Mr. Stafford Howard, and Mr. Cropper. It provides that "no person shall sell by retail liqueurs or spirits under the authority of any retail licence which such person shall have obtained as a wholesale spirit-dealer from the Commissioners of Inland Revenue, except in premises occupied and used exclusively for the sale therein of intoxicating liquor, and which premises have no communication with the premises of, nor are in any way occupied by, a person who is carrying on any other trade or business." The object is to commence the disestablishment of grocers as wine and spirit dealers, the wine question being at present reserved. Various special saving clauses are added in the Bill, exempting from its operation specially-named places, the sale of spruce, or black beer, and "the sale of medicated or methylated spirits, or spirits made up in medicine and sold by medical practitioners or chemists and druggists."

* *

A CURIOUS will case recently came before the Master of the Rolls. A Miss Margaret Trotter, who died some eighteen months ago, with a personality amounting to about 300,000*l.*, left, among other legacies, the sum of 3,300*l.* in Midland Railway Stock to the London Homoeopathic Hospital. It was found, however, that at the time she died she was not in possession of any of that particular stock. The executor, who was also residuary legatee, therefore, contended that the legacy was invalid, but, believing that the lady had intended to leave something to the hospital, offered a compromise, which, however, was not accepted by the hospital authorities. The Master of the Rolls decided in favour of the latter, ordered the stock to be bought at a cost of over 4,000*l.*, and the costs of the action and interest on the sum withheld to be paid to date.

* *

ABOUT the same time the same hospital came in for another piece of good fortune. A Miss Durnford Smith, who has for the past three years supported six beds, made over to the treasurer 5,000*l.* worth of debenture bonds to endow those beds in perpetuity. There are now thirteen beds thus supported in the Homoeopathic Hospital by special donations, and the honorary treasurer, Major Vaughan Morgan, has lately inaugurated a scheme for developing this form of munificence. He states that a child's cot in the hospital

costs about 25*l.* a year, and an adult's bed about 35*l.* a year, to maintain. A special fund is, therefore, opened for children or adults to subscribe to from 1*l.* a year to support special beds. Thus it is asked that twenty-five little girls will subscribe 1*l.* a year to maintain a little girl's bed, and so on. The names of subscribers will be over each bed so endowed, and each will have the right of recommending a patient once every year, who will be received if possible. We have described this scheme of mutual subscription because it seems to be a plan which might be adopted with advantage by other charitable institutions.

* *

THE Special Board of Medicine of the University of Cambridge have issued the following schedule to define the range of the examination in pharmacy and pharmaceutical chemistry for students for medical and surgical degrees:— "The questions will have reference to the weights and measures of the British Pharmacopœia and of the metric system, and their mutual relations; the nature and use of the pharmaceutical processes of infusion, decoction, distillation, percolation, and solution; the chief steps in the preparation of quinia, morphia, carbolic acid, salicylic acid, hydrocyanic acid, ether, chloroform, and the chlorides of mercury; the more important impurities or adulterations which may be associated with quinia, morphia, opium, ether, chloroform, iodide of potassium, subchloride of mercury, mercury with chalk, and sulphuric acid, together with the tests by which they may be detected; the chief instances of chemical incompatibility between drugs which are in common use; the proportions of the essential ingredients contained in the pharmacopœial preparations (for internal use) of arsenic, antimony, opium, atropia, morphia, quinia, and strychnia; and the chief ingredients of the more important compound preparations; the common or popular names of the more important drugs and preparations. The student will, moreover, be expected to recognise ordinary specimens of the more important crude drugs and of the more characteristic preparations.

* *

WE alluded last month to the vigorous attack on the underselling traders which Mr. G. J. Seabury, of the firm of Seabury & Johnson, is leading in New York. It may be remembered that he advocates a joint-stock company among legitimate pharmacists, who are to establish a dépôt and under-cut the cutters until the latter surrender. He offers to guarantee a large sum on the success of his proposal. It appears, too, that his firm have, with honourable consistency, refused to supply their goods direct to the cutting firms; at least one of those firms, called Hegeman & Co., have tried to make capital out of such a refusal. They say (addressing Seabury & Johnson):—

You say we shall not cut your goods, but that we must impose on the people by charging them 200 per cent. profit for your Benson's capsicin plaster. We have sold them at 15*c.*, and made a full profit. You demand that we shall charge 25*c.* We will not.

Mr. Seabury answers by explaining that their position is that the profession of pharmacy is not to be relegated to that of commercial customs; that such prostitution must lead to the dispensing of untrustworthy medicines, disastrous both to the physician and pharmacist, therapeutically and morally, and particularly to the innocent public; and that manufacturers ought to discriminate in favour of the public and of true pharmacy. He says that at 15*c.* on the article named the seller gets 3*3*/₄ profit—a rate which, he avers, does not afford a living profit to a pharmacist.

You may argue, adds Mr. Seabury, that you are enabled to dispose to the same customer a bottle of whisky at 75*c.* that costs you but 30*c.*, but pharmacy and whisky are not countersigned allies; and if pharmacists are to adopt Chatham Street methods, the sooner we do away with colleges of pharmacy and pharmacy boards the better. But so long as the State code and our local laws hold pharmacists responsible, so long must we unite and suppress any and all desperate moves that lower the profession, and force irregular dealers to reform, by not supplying them articles wherewith to crush their competitors.

Whether Mr. Seabury's argument be based on true principles of economy or not, his firm is at least entitled to the gratitude of all legitimate pharmacists for the gallant and generous policy they have adopted.

THE ill-wind which makes the corn-sufferer jump is assuredly entitled to a liberal share of credit for its effect on the "proprietary" trade. In Messrs. Newbery's new catalogue there is a curious summary of the corn preparations actually in existence, indicating, by their titles, an amount of inventiveness and confidence which ought to have left the world free at least from that check to its cheerfulness. There are, it appears, at least twenty makers of "corn-plasters," while fifteen persons provide "corn-solvents." There are four inventors who have discovered "corn-curcs," and one whose cure needs to be qualified as "miraculous." There are two "destroyers," four "eradicators," one "remover," a "rubber," "rough on corns," "smooth on corns," and a "no more corns." There are "rasps" and "files," "pencils," "paints," a "lotion," a "salve," and a "specific." One maker, who does not seem to hope for complete victory, offers a "shield," while one who has no doubt of it already claims the "ivy-leaf." The "worldly treasure" is the modest designation of another benefactor, but the rest of the discoveries are not capable of description in English. They are specified as Antakos, Anti-callosity, Callicide, Callicura, Callosine, Cannabine, Catholicon, Celandise, Chiropodyne, Chloros, Clavinsine, Colloidine, Durakos, Kallisosdyne, Melanite, Nihiline, Pedicura, Takistodone, Verrucacine, and Viridine. And still the unvanquished corn holds it own, and not a change of weather comes but ten million pangs shoot through the toes of our mighty human host.



A Short Exposition of Massage as a Curative Agency, and of the Physiological Principles on which it is Founded.
London: Baillière, Tindal & Cox. 6d.

A LITTLE fourteen-page pamphlet, naming no author, describing pretty clearly the way the blood circulates, which is probably the physiological principle on which massage is founded, but certainly not giving any exposition whatever of massage beyond indicating that it is a process of kneading which ought to be carried out by someone acquainted with anatomy.

All About Opium. Edited by H. H. Sultzberger, merchant. London: 110 Cannon Street.

WHEN a merchant who claims to have had special dealings in opium undertakes to tell us "all about" it, we naturally expect at least some serious and useful commercial information. What we least look for from such a one (perhaps it is a pity this should be so) is an essay on the moral questions which may happen to be in any way associated with the article in which he deals. But in this, as in so many other matters, it is the unexpected which happens, while reasonable anticipations are disappointed. Mr. Sultzberger, we gather, has found it necessary to his conscience to convince himself of the blessings of opium as a drug, and the righteousness of all wars and political enterprises undertaken in its behalf. He professes to give the materials to enable everyone to judge for himself the merits of the discussion respecting the opium trade with China; but it is quite safe to say that from his book alone no one could ascertain with any approach to accuracy what are the alleged crimes of the English against the Chinese in this matter. The statement of the controversy on which Mr. Sultzberger relies is that given by Sir Rutherford Alcock, the uncompromising advocate of the trade. It is true a report of the meeting of the opponents of the trade in 1881 is printed, but the speeches there made by very distinguished persons were made by and to a generally-convinced audience, and no attempt seems to have been made to argue the question then. If Mr. Sultzberger had really wished to give a summary of the controversy fairly, he ought to have gone through a number of Blue-books and foreign reports, or he might at least have added to the reprint of Sir Rutherford Alcock's article in the *Nineteenth Century* of December, 1881, the very able reply by

Mr. Fossett Lock in the *Contemporary Review* of April, 1882, which has been reprinted by the Society for the Suppression of the Opium Trade. We are not disposed to enter into the discussion of the politics of the question generally; but in the interest of fair play it is desirable to point out what must be evident to everyone with even a superficial acquaintance with the controversy, that Mr. Sultzberger has given nothing like a correct representation of the "attacks" on his "unjustly-abused article," which he declares he has watched "with particular attention."

Besides the articles we have alluded to, Mr. Sultzberger reprints and edits here a number of other newspaper and other cuttings relative to opium, chiefly in reference to the Chinese consumption. He also adds a few pages relating to the Peruvian trade, and summarises the whole with his own reflections. He does not tell "all about" any one section of his subject, and consequently his compilation is a very unsatisfactory one.

Etudes Experimentales sur la Contagion de la Fièvre Jaune.
Par le Dr. Domingos Freire. Rio de Janeiro: Imprimerie du *Messager du Brésil*.

In August last we commented on a report sent to the English Foreign Office by Mr. Corbett, H.M. Minister at Rio de Janeiro, in which some very interesting experiments by Dr. Domingos Freire were alluded to, which went to show the microbic nature of the contagion of yellow fever, and which included the important observations which had been made by Dr. Freire and his commission on the earth of the cemeteries in which the victims of that disease had been buried. They found in it myriads of microbii identical with those they had found in the organic fluids of the bodies of persons sick of the fever. We have now received from the author, through Mr. Corbett, the pamphlet whose title we quote, which we have read with interest. The author is quite confident that he has discerned the germ of the terrible disease, and he gives abundant evidence by his records of experiments on animals in support of his belief. He describes the microbe as *Cryptococcus xanthogenicus*. But the most interesting portion of the pamphlet is the author's theory as to his probable discovery of a safe means of inoculation against yellow fever. First, it should be remarked, that the yellow-fever epidemics in South America always cease at the end of the summer—in June or July. From August to December the microbe seems to lose its activity and its toxic power. Dr. Freire has proved to his own satisfaction that temperature is the chief factor in exciting these characteristics. He found that by elevating the temperature of the culture of his microbii he could restore their activity, but, inoculating a guinea-pig with them, the effect was very slight. On inoculating another guinea-pig with them, however, and keeping it in a chamber with a full current of air, but at summer temperature, the symptoms of fever were fully developed, and the animal died. Dr. Freire believes, therefore, that it will be quite safe to inoculate man with cultures of the *Cryptococci* in the cold months, and he declares his intention of making a public experiment on himself. Dr. Freire names another method of producing what he believes to be a safe method of producing a culture for inoculation, but he gives preference to the system already described. The other process consists in passing the microbii through fowls. They are almost insensible to the infection, and they seem to destroy to a great extent the toxic character of the microbes.

Modern Household Medicine. By Charles Robert Fleury, M.D. Second edition, revised and enlarged. London: E. Gould & Son. Fp. 709.

In this very well produced work we find an excellent description of diseases, symptoms, &c., with much excellent advice respecting the general treatment of disease. Noticeable too, as the work comes from homeopathic author and publishers, is the utter absence of infinitesimal doses. In a large proportion of cases mother-tinctures or the first decimal dilution are ordered. This practice of giving small but appreciable and effective doses of remedies is that which seems to be evolving out of the confused strife of the different schools of medicine. Such books as this ought to contain, but they never do, as an introduction, a simple diagram showing the construction of the human frame, and an explanation of the functions of the various organs.

Dymock's Vegetable Materia Medica of Western India.
Part V.

WE have noted the appearance of the successive parts of this excellent work, and now congratulate the author on the satisfactory completion of his onerous but self-imposed task. He has provided the world with a very handy compendium of all that is known about the plants used in medicine in Western India. He has combined with this much careful original work in the identification of the sources of unascertained drugs, and has added a comprehensive abstract of the best information contained in Oriental languages spoken between the Indian Ocean and the Mediterranean. The text fills 736 pages, with seven appendixes; the index fills fifty pages more, in double column; it contains every native, foreign, and scientific name in the book (so far as we have tested it), except those in Appendix E, which is a very interesting list of the plants used as food during the Deccan famine, 1877-78, with vernacular name, part used, and scientific name, the latter determined by Dr. W. Gray, Mr. Sakharan Argun, and the author. The completeness of this index will be recognised as a great boon by all who are not content to take things at second-hand, especially by active original workers.

At the close of Appendix E, just alluded to, is an analysis from a dietetic point of view of "the most important and generally used wild seeds during the famine." This brings out the remarkable fact that, taking the nutritive value of the average cereal and the average pulse at 100 each, the seeds of *Abutilon muticum* stand at 71, and those of *Cyanotis axillaris* at 85-76, when compared with the cereals; while, compared with the pulses, the seeds of three species of *Indigofera* stand at 76 (*I. linifolia*), 83 (*I. cordifolia*), and 95 (*I. glandulosa*). If such things could be had in plenty, and proper means were taken to cook them, a population ought never to starve.

The author labours under one disadvantage. The ground he has now mapped out with the precision of the ordnance survey, indicating what is known and where further researches are desirable, is not altogether new. For centuries the East has attracted the curious gaze of learned and eloquent men, who have seized the salient and most interesting features, and pictured them for the general public. For want of materials, or of industry, they have, however, left the dull but far more useful work of filling up their bold sketches to our author. He has shown much self-denial in constantly quoting any available and accurate account of the products he is treating of, as in the case of the Seychelle cocoanut. This deprives the reviewer of his most interesting quotations.

The new feature in this part is the series of appendixes. One has been already mentioned. Appendix A is a list of undetermined drugs, arranged without apparent order under their vernacular names. One of these offers the solution of a curious puzzle. The Amomum figured by Clusius is quite unlike any other ammonium or cardamom known. It is in tufted masses, like a bog-moss. But a drug sold in Bombay under the name "Amamoon" exactly corresponds with this figure. It is interesting to note that under the name of "Geeko" a wood is sold, described as a new remedy from Yangidunya (the new world), resembling and used in the same manner as guaiacum.

Appendix B is a further note on *Gynocardia odorata*, C on *Abrus precatorius*. F and G show how thoroughly the author has worked up his subject, for one is a brief note on Mr. W. A. H. Naylor's paper read at the Pharmaceutical Conference last autumn, and not long published *in extenso*, on the bitter principle of *Hymenodictyon excelsum*, the other is on an unfinished research into the constituents of *Withania coagulans*, now being carried on by Mr. D. S. Kemp, druggist, Bombay. Appendix E has been already mentioned. We quote Appendix D on "Oriental Weights—Arabic, Persian, and Indian," as possibly useful information, and to make British readers somewhat more contented with their lot.

ORIENTAL WEIGHTS.

ARABIC, FROM THE MISBAH.

Rati, according to the standard of Baghdad, twelve ounces; the *ounce* being an *istar* and two-thirds of an *istar*; and the *istar* being four *mathákil* and half a *mithkál*; and the *mithkál* being a *dirham* and three-sevenths of a *dirham*; and the *dirham* being six *dowdánik* and the *dánik* being eight *habbáh* and two-fifths of a *habbáh*, so that the *rati* is ninety *mathákil*, i.e., one hundred and twenty-eight *dirham* and four-sevenths of

a dirham; or, according to A'Obeyd, 128 dirhams of the weight of seven or twelve ounces, the ounce, i.e., the ounce of the Arab, being 40 dirhams, so that the whole is 480 dirhams. The *dirham* is 48 grains and the modern *mithkál* 1½ *dirham* instead of 1¾ *dirham*.

PERSIAN WEIGHTS.

Nukhúd, a grain of *Cicer arietinum* = 1½ ounce avd. about.

24 *nakhúd* = 1 *miskál*, nearly ½ of an ounce avd.

90 *miskál* = 1 *vakkah*, about 14 ounces avd.

8 *vakkah* = 1 *Tabriz mán*, 7½ to 7¾ lbs. avd.

The *mán-i-Shahí* or Royal *mán* is from 14½ to 15 lbs. avd.

The *mán-i-Rai* or *mán* of Rai nearly 30 lbs. avd.

The *mán-i-Hashimi* or Hashimi *mán*, used only in the South, is 116 lbs. avd.

The *Chárik* is a quarter of a *mán*, usually of the *Tabriz mán*, but sometimes of the Royal *mán*.

The *Bátmán* is a Turkish weight used in Western Persia, nearly 15 lbs. avd.

The *Kirát* is an Arabian weight of from 3 to 4 grains, varying in different parts of the country. (See note on Arabian weights.)

INDIAN WEIGHTS.

(From *Dutt's Hindu Materia Medica*.)

18 mustard seeds, 4 grains of rice, 3 grains of barley, or 2 grains of wheat = 1 *Gunja*, *Raktrica* or *Ratti* = 1.84 of a Troy grain about.†

6 *Gunjás* = 1 *ána*.

12 *Gunjás* = one *máshá*.

8 *Máshás* or 16 *ánaás* = 1 *tola*.

8 *Tolas* = one *pala*.

8 *Palas* or 64 *tolas* = 1 *scer*.

2 *Seers* = 1 *prastha*.

8 *Seers* = 1 *ádhaka*.

32 *Seers* = 1 *drona*.

100 *Palas* or 12½ *seers* = 1 *tula*.

In the above scale 96 *gunjás* make one *tola*; it would seem, however, that in ancient days Susruta's scale of 40 *gunjas* to a *tola* was in general use, as the doses given in the older works appear to us enormous. There is a peculiarity in fluid measures which must also be noticed. When a fluid article is ordered in measures of a *prastha* or two *seers* and upwards, twice the quantity mentioned should be taken. In measures below two *seers*, or in those indicated by *pala*, such as 80 *palas*, 60 *palas*, &c., the quantities are not doubled. (Op. cit., p. 8.)

This book will be, in the German sense, epoch-making. Future researches will start from it, whether forward into the unknown regions of organic chemistry, or backward over the relics of the past, to glean a few still hidden grains of history.

On Bedside Urine Testing. By George Oliver, M.D., &c
London: H. K. Lewis.

DR. OLIVER, of Harrogate, suggested and worked out about a year ago a method of preparing various test-papers for urine, and we have alluded to these as supplied by Messrs. Wilson & Son, of Harrogate, on two or three occasions. The test-papers are made by saturating pure filtering-paper with the test solutions, such as potassium-mercuric iodide, sodium tungstate, potassium ferrocyanide, and picric acid for albumen, and indigo carmine for sugar. These papers are used as easily as litmus paper is employed, and they possess other advantages than portability merely, such as for instance that, while some of the solutions need to be newly prepared whenever they are used, the papers seem to keep indefinitely. Dr. Oliver has now given a summary of his experience with these paper tests, with a great many hints derived from constant practice, and adding explanations of ingenious methods he has devised for ascertaining by their means the quantities of albumen or sugar present in the urine tested. For quantitatively testing the albumen in urine he employs a piece of glass of standard opacity, which compares with a tube of a certain diameter in which albuminous urine has been precipitated by a potassium-mercuric iodide paper. The opacity is tested by reading a card through the glass and the tube, and when it corresponds exactly the proportion of

* "In the time of Ignorance some dirhams were of the weight of 20 carats and were called the *weight of ten* (i.e., of 10 daniks); and some were of the weight of ten carats and were called *weight of five*; and some were of the weight of twelve (carats) and were called the *weight of six*, and they put the three weights together and called the third part thereof the *weight of seven*." (Madd-el-Kamus.)

† The seeds of *Abrus precatorius* vary considerably in weight. Dr. Warden found the mean weight of the red variety to be 1.75, of the black 1.77, and of the white 1.97 grain.

albumen present is 1 per cent. If a greater proportion is present the fluid is diluted till correspondence is attained. Dr. Oliver is confident that by this method anyone could distinguish between 1 and 12 per cent. Sugar he detects by means of indigo-carmine papers, the use of which he has himself proposed, and the rapidity with which the colour is discharged is the test of the quantity of sugar present in the urine. Dr. Oliver describes the methods of testing with extreme clearness, but with no waste of words, and he has consequently said all he wants to say in a small compass; but his little treatise will be found of considerable assistance in clinical urine testing.

The Artists' Table of Pigments; showing their Composition, Conditions of Permanency, Non-permanency, and Adulterations; Effects in Combination with other Pigments and Vehicles, and giving the most Reliable Tests for Purity.
By H. C. Standage. London: Wells, Gardner, Darton & Co. 1883. 1s.

THESE eight pages of tables give a remarkable collection of condensed information relating to artists' pigments, their chemical composition, and the other particulars mentioned in the title. It is written for artists, and the manufacturer's standpoint is ignored. Still, the information is reliable, much of it new, the rest from the works of the soundest authorities, whose names are recited in a dedication signed by Wallace L. Crowdly. The variety of pigments is surprising to the lay reader. Aureolin, a famous yellow, of comparatively recent discovery, is an example of what may still be done. It is a compound of cobalt, potassium, and oxide of nitrogen; hardly one which would, *a priori*, be expected to furnish a valuable pigment. It is permanent under most conditions, and its brilliance and transparency have made it a general favourite. There is, therefore, still room for new discoveries. This would certainly be a cheap book for all who have any interest in the subject of pigments.

Plant: An Analysis: Quantitative and Qualitative. By G. Dragendorff, Ph.D., Professor of Pharmacy in the University of Dorpat, Russia. Translated from the German by Henry G. Greenish, F.I.C. London: Ballière. 1884.

THE wide spread of the study of science has proved a great stimulus to the study of German. There was so much information locked up in German works that chemists especially were driven to make themselves masters of the key. Still there are not many workers who are as familiar with German as with English, so that translations of important books are valuable. Professor Dragendorff's works on the subject of organic analysis achieved the position of text-books immediately they appeared. The "Chemico-legal Detection of Poisons" came to a second edition in 1876; the "Chemical Valuation of Powerful Drugs and their Pharmaceutical Preparations" was first published in 1874. Both have been translated into French. Besides these the author has published in periodicals a host of articles dealing with allied subjects, and the present work is in part a product of these researches. Its object is to make some steps towards the construction of a systematic process of analysis that will include as many as possible of the more important constituents of plants. "No one can be more thoroughly aware than myself," says the author, "of the insufficiency of the material at present available for the construction of a systematic analysis." At the same time it may be safely said that nothing will hasten the collection of materials more than a bold attempt by a master to indicate the waymarks. The author assumes in his readers an acquaintance with the leading principles of general analytical chemistry, and has not treated of ultimate and ash analysis.

We cannot give our readers a better idea of the character of the work than by enumerating the headings of the chief sections. The preliminary operations include drying and powdering, estimation of moisture and ash. Next the substance is exhausted with petroleum spirit, which removes ethereal or fixed oils, wax, chlorophyll, &c. Each of these is examined separately. The third heading is the examination of the substances soluble in ether, resins, and their allies. Exhaustion with absolute alcohol removes resins, tannin, bitter principles, alkaloids, glucoscs, &c. Then follows an exhaustion with water, the mucilage, saponin and its allies, acids, glucoses, saccharoses, albuminoids, and inulin, receiving

systematic attention. Treatment with dilute soda and with dilute hydrochloric acid, with the examination of the substance finally left undissolved, complete the scheme and fill the first ninety-eight pages of the book. A hundred and fifty pages are then occupied with special methods of analysis, supplementary notes, &c., giving complete particulars of the methods of isolating all sorts of organic compounds.

Two very useful tables at the end give the chemical formula and percentage composition of a very large number of the more important constituents of plants. The first is arranged according to the alphabetical order of the names of the compounds; the second according to the percentage of carbon. The latter is a great convenience to those engaged in the investigation of unidentified substances, as a speedy reference to the table will show what he is dealing with.

The translator has accomplished his work admirably. The English version is really English, and shows no trace of the process of translation. The printing and binding are both good.

The Art of Soap-making: A Practical Hand-book of the Manufacture of Hard and Soft Soaps, Toilet-soaps, &c., including Many New Processes, and with a Chapter on the Recovery of Glycerine from Waste Leys. By Alexander Watt. London: Crosby Lockwood, & Co., 1884. Pp. 12 and 260. Price 9s.

THIS little work, aiming to fill a void in English technical literature, certainly imparts a large amount of information on what seem to be all the branches of the subject. The author does not claim to treat of every process ever invented or patented, but rather to give a summary which will be useful to the manufacturer while it will be instructive to the student. The author treats of hard, soft, toilet, medicated, and miscellaneous soaps in numerous varieties. He gives chapters on alkalimetry, methods of assaying soaps, purifying and bleaching oils and fats, recovery of glycerine from waste or spent leys (a series of abstracts of patent specifications), and useful notes and tables. The section of most practical interest to our English readers is that describing the French method of making toilet-soap. Anyone with a machine for mixing and kneading can take up this industry, the only additional plant required being an instrument for cutting the soap into shavings, which any carpenter could make, and two lever-presses, one for roughly shaping the cakes, the other for finishing them. The soap which is to be perfumed is obtained from some large soap-maker. The process is as follows:—The soap is cut into shavings by a machine described in another part of the book, and the shavings are placed in a lead-lined wooden box. The proper proportion of essential oils and colouring matter (except when the soap is required to be white) are first mixed in a separate vessel, with a little alcohol, and the mixture is then added gradually to the shavings, with continual stirring. The perfumed shavings are next placed in a grinding-machine, through which they are allowed to pass several times, until a perfectly homogeneous paste is formed. The soap is next pounded in a marble mortar, by means of a wooden pestle, the object of which is to convert the soap into a uniform mass. Only a few pounds (about 10 or 12) of soap are pounded at a time, lest it should become too dry for the subsequent operation of *balling*, which is performed somewhat as follows:—The soap is placed on one end of a table, on which is a marble slab, and in order that an allowance may be made for the reduction of weight which the soap has to undergo in the process of drying, the balls or cakes of soap are made about 25 per cent. heavier than the finished tablets. The directions for making the soap into cakes of the proper size, weight, and form for the pressing and stamping machines are thus given by Dussaute:—“Weigh as many pieces of 4½ oz. as you want of cakes of 3½ oz.; knead with the hands each little mass of soap, so as to form a ball, which is made round on the marble slab. For this purpose, the ball being on the marble, give it a rotary movement with the right hand. The ball being obtained, leave it on the marble, and give it a cylindrical shape by rolling it with the flat of the hand. This cylinder must not be larger than the model (mould?). Nevertheless, as the cylindrical shape is not that which the soap ought to have, strike the cylinder on all its sides on the marble to square it—that is, to form an oblong square—and round the angles by striking them gently on the marble. If any unforeseen circumstance requires a suspension of the

work, cover the pounded soap with a damp cloth and keep it in a cool place. If the soap is too dry, it will be difficult to work well. Once begun, it must be worked quickly and without interruption. The small cakes being shaped as indicated, dispose them on trays or frames of white wood, traversed in their length by small rods of wood, in such a way that each frame presents as many empty spaces as full ones. These frames have a length of 27 inches, by 18 inches wide; they are arranged on shelves, at a distance of 5 or 6 inches from each other." In arranging the soap-cakes as above, a space of about $\frac{1}{2}$ -inch is allowed between each, so that the air may circulate round them, and thus facilitate their drying on the surface. It is important that the drying should be as rapid as possible. In about a week the surface of the cakes will have become hardened and ready for pressing. This is done by means of a lever-press, described elsewhere, which merely gives to these cakes the preliminary form of the mould. To apply the press, one of the cakes is placed on the lower half of the mould, and the lever is then forced downwards and then raised, when the cake is removed and another substituted for it, and so on, until all the cakes have been struck. The edges of the cakes are then trimmed, after which they are again set aside to dry, and when sufficiently so they are removed from the drying-room, and the hardened skin which has formed upon the surface is carefully removed by means of a sharp knife, with which the cakes are dexterously scraped by the workman. It is said that a good workman can scrape forty dozen of cakes in a day. When the cakes have been scraped they are moistened with alcohol, to improve the smoothness of their surface. To accomplish this, the fingers of the right hand are dipped in alcohol, and this is spread quickly over the cake, which is then rolled in both hands, by which it becomes moistened all over in a few moments. The cakes are again dried for about twenty-four hours, after which they are ready for the final stamping, which is effected in the fly, or screw, press, by which an active man can mould 1,500 cakes of soap per day. In the above process there is a loss of about 14 or 15 per cent. of water during the several drying operations, but this is allowed for in the operation of balling, in which the cakes are made heavier than the resulting finished soap is required to be. The scrapings of the cakes are afterwards worked up in future batches of the same kind of soap.

Numerous formulæ are given. Colonial chemists would find in this work very useful directions for the manufacture of other kinds of soap required in their trade. Few enterprising druggists would fail to find profitable hints in it.

The Mineral-water Makers' Manual for 1884. London: Office of the *Mineral-water Trade Review*.

SINCE we began the publication of a diary in connection with this journal most of our trade contemporaries have fallen into the habit. In the *Mineral-water Makers' Manual* before us we find a good deal of information brought together, all useful to the class of readers for whom the book is intended.

DR. HAGER tells a correspondent through the *Pharm. Central*, that, as soon as he has finished with his "Commentary on the New Pharmacopeia," he intends to write a work, "Aus meinem Leben," a sort of autobiography, which is intended to be an assistance to the building up of the moral and scientific character of the pharmacist.

MORE POETIC THAN PANCREATIC.—

The melon grew in a sunny clime,
Where the air is sweet with the breath of thyme;
The boy saw life by the Northern tide,
Where the sea's wild waves o'er the Maine coast glide.
They were buried together—the melon inside.

American Druggist.

A MODEL APPRENTICE.—Cut from the *Daily Globe* of Boston, U.S., of September 8, 1883:—

WANTED, a good healthy boy, no matter of what nationality, to learn the apothecary business and run errands; one of affable disposition, neat, honest, intelligent, and obliging; willing to work; an early riser; not afraid to soil his hands, nor given to reading story papers while there is anything else waiting to be done; who will not be tickled to have somebody else to do his work; truthful and obedient; not too proud to do work his employer is willing to do.—Apply 206 Cambridge Street.

Scientific Notes:

On Chemistry, Pharmacy, Botany, Materia Medica, &c., Original, Selected, and Translated.

SPURIOUS TARTAR EMETIC.

M. CASTELHAZ has in a recent circular called the attention of consumers to the sophisticated, or rather spurious, samples of antimony-potassium tartrate now in the market. This compound is used upon a large scale for fastening certain coal-tar colours upon cotton, and being of course costly the attempt has been made to employ the corresponding oxalate as a substitute. The effects of this new salt both upon the fibre and upon the colours are not in all cases satisfactory, and its admixture with, or clandestine substitution for, the double tartrate is certainly a fraud. For its detection the following simple test is proposed:—A portion of the sample is dissolved in distilled water, acidified with pure acetic acid, and a solution of calcium chloride is added. If an oxalate is present a white precipitate is formed, whilst in ease of a genuine double tartrate the solution remains clear.—*Chem. News*.

It is, of course, possible that some of this spurious tartar emetic may find its way into medicinal channels. The test is so easily applied, however, that there ought to be no danger of its remaining in the stock of competent pharmacists.

ARNICATED GLYCERINE.

M. VIGIER, in the *Gaz. Hebdom.*, says that arnicine, the active principle of arnica, is stored chiefly in the root. He recommends a tincture to be made by macerating the whole plant cut up and bruised in an equal weight of strong alcohol for a fortnight, then pressed. But if glycerine be used instead of alcohol a brown syrupy liquid is obtained, which can be preserved indefinitely, containing equally the arnicine in solution. The same author, however, has shown that glycerine is not absorbed by the skin, and therefore the general use of this preparation is not recommended, but he suggests it as a useful addition to bandages and compresses, as it will not dry.

THREADY DISTILLED WATERS.

WE quoted last month from the *Union Pharm.* the process whereby M. Carles, of Bordeaux, clears orange-flower and other distilled waters from the thready parasites which often destroy their quality. M. Castelbon, of La Vernarède, writes to the same journal to say that he has employed a similar process for the past thirty years, but using carbonate of magnesia in the proportion of 3 or 4 grammes per litre instead of subnitrate of bismuth.

FALSIFICATIONS:—BORATE OF MANGANESE, TARTAR EMETIC.

THE bitterness between French and German writers is by no means confined to political journalists, but breaks out frequently enough in scientific and commercial publications. In the last number of the *Journal de Pharmacie et de Chimie* Mr. Jungfleisch, whose name would rather suggest Tenterie than Gallic sympathies, makes an attack on some of the German chemical manufacturers which at least requires an answer from the accused. Mr. Jungfleisch recognises that German competition is seriously affecting some branches of the French chemical trade, but he is not quite certain that this success is altogether attributable to German skill—at least, in the instances given he thinks it may be otherwise explained. Borate of manganese is one of the products in the manufacture of which the Germans have beaten the French out of the field. This chemical has a remarkable effect on drying oils, and is now regularly employed in the paint manufacture. The French product generally contains 20 or 21 per cent. of protoxide of manganese, and is impure by about 1 per cent. of lime and traces of sulphuric acid. For some time past, however, a German so-called "chemically pure" article has been on the market, which has been sold at a price so low that the French manufacturers have

had to declare themselves beaten. But one of the latter, a M. Suilliot, has thought it worth while to analyse this chemically pure German product, and has announced the discovery in it of 5·9 per cent. of protoxide of manganese, while 64·8 per cent. of the salt he finds to consist of sulphate of lime. He has learned, in fact, what the Germans seem to have ascertained some time ago, that a very little of the borate of manganese will have as good an effect in drying the oil as a much larger quantity, and in this respect only does he admit the superiority of German skill.

Another chemical in the manufacture of which the Germans have lately beaten the French is tartar emetic. So long as the use of this article was confined to medicine there was no reasonable field for competition, but of late dyers have found it of great value as a mordant. Mr. Jungfleisch then remarks on the samples of German "emetic," which have been found to consist of oxalate of antimony and potash ($C_4K_2O_9$)₃Sb + $6H_2O_2$. [We mention this in another paragraph.] This salt can be made to resemble very closely in appearance the true tartar emetic, but it only contains 23·6 per cent. of oxide of antimony, while the tartrate contains 43·7 per cent.; and it is the antimony on which the virtue of the mordant depends. Besides, the acidity of the oxalate destroys some of the colours to be fixed on the fabric. This falsification, it appears, is not the only one practised in regard to "emetic." The *Chemiker Zeitung* mentions four analyses made in Messrs. Schering's laboratory of samples of certain brands designated below:

Emetic powder, No. 82: Emetic, 75·8; sulphate of zinc, 23·2 (proportion of oxide of antimony, 32·3 per cent.).

Emetic succedaneum: Emetic, 33·7; sulphate of zinc, 59·3; sulphate of potash, 5·2 (proportion of oxide of antimony, 14·3 per cent.).

Antimony mordant: Emetic, 57·8; chloride of potassium, 41·5 (proportion of oxide of antimony, 24·6 per cent.).

Antimony mordant: Emetic, 45·7; sulphate of zinc, 33·5; sulphate of potash and chloride of potassium, 20 (proportion of oxide of antimony, 19·4 per cent.).

TINCTURE AND EXTRACT OF NUX-VOMICA.

MESSRS. DUNSTAN AND SHORT are still pursuing their investigations respecting the alkaloidal strength of commercial samples of nux-vomica, and the result of their researches is a proposal for a standard extract and tincture.

It has been shown that different specimens of nux-vomica vary considerably in alkaloidal content; consequently, the commercial extract and tincture also vary; the object sought was to obviate this variation. An obvious plan was to obtain a specimen of nux-vomica of known percentage of total alkaloid, and completely to exhaust a certain weight with a definite volume of alcohol. Practically complete exhaustion in this way was impossible; and nux-vomica constant in percentage of alkaloid was difficult to obtain.

The authors took a good sample of commercial powdered nux-vomica. On an average, specimens contain 3 per cent. of total alkaloid. The finely-pulverised seeds were percolated with a definite volume of alcohol of specified strength; the percolate was measured, and the quantity of total alkaloid in a given volume ascertained. The volume of this percolate, which contained a quantity of alkaloid corresponding to the percentage of alkaloid which should be present in the extract, was then taken and evaporated to a definite weight. They fix 15 per cent. as the quantity of total alkaloid which should be contained in the standard extract of nux vomica. The percentage was based on previous analyses of commercial extracts. Unless the seeds were reduced to a very fine and uniform state of division, thorough and uniform extraction was impossible.

The authors recommend the employment of a dilute alcohol made by adding 25 volumes of water to 100 volumes of rectified spirit—a strength possessing the highest solvent power. It seemed advantageous on the small scale to exhaust with a comparatively small quantity of spirit without the aid of heat rather than to exhaust with boiling alcohol, according to the usual process, and experiments were therefore made in this direction.

Experiments were now repeated on a larger scale, the quantity of extract, as well as of total alkaloid, being estimated in each successive fraction of the percolate.

One lb. of nux vomica, containing 189 grains of total alkaloid, was extracted with 4 pints of dilute alcohol (100:25), maceration and percolation being both employed.

Results showed that nux-vomica is practically exhausted by four times its weight of alcohol of the specified strength. From this strong tincture the extract was prepared. Nine fl. oz., containing 10 grains of total alkaloid, were converted into an extract of suitable consistence by evaporating upon the water-bath until the product weighed 66·6 grains, that is, contained 15 per cent. of total alkaloid. In all cases it was found feasible to prepare such an extract from different specimens of nux-vomica. Hence this formula:—

Take of—

Nux-vomica in fine powder	..	..	..	..	1 lb.
Rectified spirit	..	..	..	..	64 fl. oz.
Distilled water	..	..	..	..	16 "

One fl. oz. of the tincture thus obtained is thus assayed:—Evaporate nearly to dryness, dissolve the residue in f. 5*ij*. chloroform with f. 5*ss*. dilute sulphuric acid with an equal bulk of water, agitate and warm gently, add to the acid liquid excess of solution of ammonia and f. 5*ss*. of chloroform, agitate, warm gently, and draw off the chloroform, which evaporate and dry at 212°, and weigh the alkaloid. Having thus ascertained the strength of the percolate, take so much of it as will contain 13*ij* grains of total alkaloid, and evaporate to 2 oz. The extract thus obtained contains 15 per cent. of alkaloid.

The next object was to prepare a standard tincture of nux-vomica. Two ways were clearly open: first, the dilution with alcohol of the assayed percolate described to a definite degree, corresponding to a given percentage of total alkaloid; secondly, the solution of a definite quantity of the standard extract in a given volume of alcohol. The standard tincture proposed contains 1 grain of total alkaloid in 1 fl. oz. (0·24 per cent.). A volume of strong assayed percolate, containing 20 grains of total alkaloid, was diluted to 1 pint with alcohol (100:25); a pale-yellow permanently-clear tincture was obtained (gr. j. : 5*j*.).

By this plan there would be two tinctures, one concentrated and one weak, which is, probably, no disadvantage. Or a tincture may be made from the extract, thus. Take of—

Standard extract of nux-vomica	..	..	..	133 grains
Rectified spirit	..	..	..	16 fl. oz.
Distilled water	..	..	..	4 "

Mix the spirit with the water, and dissolve the extract in the mixture. One ounce of this tincture will contain 1 grain of total alkaloid.

EXPLOSION OF AN OPEN VESSEL.—At a factory in Neusalz a large cast-iron wash-kettle was used to hold water, into which melted iron was allowed to flow, in a moderate stream, for making iron shot. On October 23, 1882, one of the workmen by mistake allowed the iron to flow too rapidly. There was a sudden development of steam, which threw out a part of the water, frightening the labourer and causing him to drop his ladle, so that about 20 kilogrammes (40 lbs.) of melted iron fell at once into the water. There was an immediate rapid outburst of steam and a loud explosion, which shattered the kettle into fragments, tore up the wood-work, threw the workman nearly 8 feet backwards, and broke his right leg. Only very small pieces of the kettle were found where it stood; some of them were thrown to a distance of about 50 feet.—*Dingler's Journal*.

FALSIFIED MAGENTA CRYSTALS.

MR. H. N. DRAPER, of Dublin, has drawn attention to the adulteration of magenta crystals with sugar "faced" with roseine. In one particular sample he found no less than 95 per cent. of this adulterant.

UNACCOUNTABLE.—A correspondent at Stockport tells us:—The latest medical bull perpetrated in this direction occurred last week, when a doctor was called in to see three sick children, for whom he prescribed. A few hours after the mother came to him in great trouble, telling him that *two* of the children had died. "But," said Dr. —, "I gave you medicine for *three*. Where is the other?"



THE LOBELIA CASE.

ON January 31, James Wallis, a herbalist, was tried at the Old Bailey, before Mr. Justice Watkin Williams, on a charge of manslaughter.

Mr. Poland and Mr. Mead prosecuted for the Public Prosecutor; Mr. Montagu Williams and Mr. Washington Lyon defended.

Mr. Poland stated that the prisoner was a herbalist, carrying on business in the City Road, St. Luke's, and professing to cure various kinds of ailments. On December 10, a man of the name of Bull, who lodged in the house of a Mrs. Sainsbury, 15 Dean Street, Chelsea, spoke to the prisoner about her. She was 44 years of age, and was undoubtedly suffering from consumption, her lungs being extensively diseased. She also suffered great pain in the chest, and was certainly very ill. Bull was in the habit of going to the prisoner's shop and obtaining medicine. He described to the prisoner the illness of the deceased, and he gave him for her some pills, a powder, and a plaster, also a bottle which, he said, contained an emetic. He was to give her from a teaspoonful to two tablespoonfuls, and he said that if he gave her all it would not hurt her. The stuff, he said, would make her sick. The woman, hearing such an instruction, was not particular in measuring the stuff, and must have taken about two tablespoonfuls. Ten minutes after she had diarrhoea, then she fainted, and was dead when a doctor arrived half an hour later. The bottle was found to contain lobelia, which was undoubtedly a drug or poison of a very powerful description, and it would be for the jury to say whether the prisoner exercised due care in administering it.

Mr. John Lloyd Whitmarsh, L.R.C.P., of Fulham Road, said he was called to see deceased, and found her dead. She was cold and clammy, and covered with cold sweat. The pupils were dilated. He subsequently made a post-mortem examination, and found the right lung adhering to the walls of the chest. She had been suffering from chronic bronchitis; the left lung was very much contracted and diseased, in fact, almost gone; and there were also adhesions on that side; the liver was much congested; the brain was congested at the posterior portion; the inner coats of the stomach and the bowels were inflamed. Witness put in a jar a portion of the contents of the stomach for subsequent examination by Dr. Stevenson. Witness at first thought that the bottle contained hellebore, from its appearance and taste. The effect of hellebore would be almost the same as that of lobelia. He came to the conclusion that she died from an irritant poison acting as a depressant on the heart's action, causing fatal syncope. He knew the nature of lobelia; it was used as an emetic; he did not himself use it as an emetic; he used it frequently as an expectorant and an anti-spasmodic; he used the tincture, never the powder or seeds. Lobelia was an Indian tobacco, or herb. He used the tincture made from the seeds: a dose of the tincture would be from 10 to 30 drops; half a drachm, which would be 30 drops, would contain about 4 grains of the seeds. He should consider 28 grains a dangerous dose. If such a dose failed to act as an emetic, it would act as a depressant of the heart's action, bringing on faintness.

Cross-examined by Mr. Montagu Williams, witness admitted that lobelia was not in the legal list of poisons, and that there had been discussion in medical works as to its properties. The following quotations from medical writers were then put before witness, who expressed modified agreement with them. From Dr. Skelton:—

In some cases where there is necessity for a speedy action, as in cases of angina pectoris or neuralgia of the heart, give one or two doses of 20 drops.

And again:—

What is the form of the disease which we are called upon to treat must be the first consideration. If it is simple diarrhoea, prescribe lobelia (powdered herb and seed), 1 drachm; capsicum (powdered cayenne), 10 grains; podophyllum peltatum (powdered mandrake), 20 grains.

This the witness considered would be a dangerous dose. From Dr. Elliotson:—

Lobelia, in fact, is one of the most important articles in the *materia medica*. With many it acts as a charm. In ten or twenty minutes they will be perfectly relieved, so that all the other remedies used in asthma and other diseases of the respiratory organs are nothing to be compared to it.

In re-examination witness said that the fact of the drug not being included in the poison schedule was not conclusive evidence that it was not a poison. Dr. A. S. Taylor was a great authority on poisons, and he had expressed his belief that in large doses lobelia inflata was a poisonous drug, and that he had reason to believe that deaths from its administration by quacks frequently occurred. Woodman & Tidy, in "Forensic Medicine and Toxicology," had alluded to the use of lobelia by the Coffinists, and added that "Coffinism is no innocent, harmless system. Its absurd theory is that heat is life, and the want of heat disease, so cayenne pepper and lobelia are the two principal medicines of its professors, which they administer with no cautious or measured hand. Over and over again they assert what has over and over again been disproved, that lobelia cannot kill."

Dr. Thomas Stevenson, Professor of Medical Jurisprudence at Guy's Hospital, said that the bottle sent to him contained an acetic solution of lobelia, with a considerable deposit of the herb itself. There were about 28 grains of the seeds and the leaves—mostly seeds—to the fl. oz., and he estimated deceased had taken about 1½ fl. oz. The appearance of the stomach was consistent with poisoning by lobelia. Lobelia and the acetic acid would both act as irritants. He considered the drug very dangerous. Had seen people suffer great depression from it when they had not vomited. In America it was said on high authority to have occasioned thousands of deaths. Dr. Stevenson had also examined the other medicines given for deceased, and these he found harmless; the pills contained capsicum, the powders cinnamon. Respectable medical practitioners had given up the use of lobelia on account of its danger.

The police inspector who arrested the prisoner said that at the time he made the following statement:—"I sent her lobelia, but it is a lie to say that it killed her or that it is poison. My wife has taken double the quantity. That fool of a doctor who gave evidence yesterday knows nothing about it. The medical science of this country is a fraud. She died of her ailments. God made the world, and supplied it with herbs for every complaint, but those fools of doctors do not know how to use them. I do. They are enemies of mine."

Mr. Montagu Williams addressed the jury in defence, contending that lobelia was not included in the list of poisons, but had been taken out of it by order of a Committee of the House of Commons, and that the proper remedy was prescribed in this case.

Mr. Thomas Stowell, M.R.C.S., of 3 Church Street, Brighton, had been in practice over thirty years, and had prescribed lobelia daily throughout that time. Had taken it himself in drachm doses. It was not a poison, but it was an invaluable medicine. There was nothing like it in the *materia medica*. It was a tonic, an expectorant, a sudorific, and a most valuable emetic. If Mr. Bravo had taken it instead of antimony he would not have died. When the Poisons Bill was before the House of Commons, guinea-pigs were obtained from Covent Garden Market, and experiments were made with this so-called poison; but the guinea-pigs would not die from it; they grew fat instead. If lobelia did not act as an emetic, it would be perfectly harmless; it would pass through the body as a gentle aperient; it would not have a depressant effect on the heart. However large the dose, lobelia could not be deleterious.

A paragraph from Tidy and Woodman describing the effect of lobelia as similar to tobacco, and implying that it was likely to cause death if vomiting were not produced, was read to the witness, who asserted that the paragraph had most likely been copied from other works written in malice.

Mr. Charles Lakin, of Leicester, L.R.C.P., said he had

practised for eleven years, and had prescribed lobelia during that time. It was a tonic, an expectorant, and a very valuable emetic. He did not consider 28 grains a dangerous dose; had himself given 60 grains. Did not consider the death of the patient was accelerated by the lobelia; it was due to the failure of the heart's action.

After the evidence of several herbalists,

The learned Judge, in summing up the evidence, said that there were two questions which they had to consider—first, whether the death of the deceased was attributable to the administering of the lobelia, or was it due to the terribly diseased condition of the poor woman, and, if the former, whether the prisoner upon all the facts was guilty of criminal and culpable negligence in administering the drug in question.

The jury, after half-an-hour's deliberation, acquitted the prisoner, but thought he should be more cautious for the future in the use of disputed drugs.

Some of the journals reported that the rider to the verdict of the jury stated "poisonous," but the solicitor for the defence wrote that the word used was "disputed," as they said the essential feature of the defence was that lobelia was not poisonous.

EMPLOYERS' LIABILITY AND THE AÉRATED-WATER TRADE.

AN important action, interesting to the aërated-water trade, was decided in the Sheriff's Court of Aberdeen, on January 26, by an interlocution and note issued by the Sheriff Substitute (Mr. W. A. Brown).

A boy named Francis Murray, aged 14, sued William Thomson, an aërated-water manufacturer, of Aberdeen, for 300*l.* damages for the loss of his left eye, due, it was alleged, to the negligence of the defender.

The boy was employed as a labeller, and the accident occurred while he was labelling lemonade, when a bottle burst, and a fragment struck his eye and destroyed the sight.

The action (said the Sheriff) is laid both under the statute and at common law. It is contended in support of the first ground of action that there was defect in the plant used in the business of the defender, which arose or had not been discovered owing to his negligence. Three different kinds of bottles are used in the defender's work, viz., one containing a glass stopper in the inside, which seals itself when the bottle is filled and inverted; another containing a similar stopper in the inside, but covered with a narrow band of indiarubber; and the third, the common egg-shaped bottle, which is corked. The bottle in question was one of the first description, and it is said by the pursuer that the constant rattling of the glass stopper inside against the glass, particularly when the bottles were being cleaned, has the effect of weakening the glass about the shoulder of the bottle, and that in consequence such bottles are more apt to burst than either of the two other classes. I think the pursuer has proved this. I am of opinion that he has further shown that the breakages in the defender's works were proportionately greater in the class to which the bottle in question belongs than in the other two, although the evidence is very scanty to show that the bursting happened in the final stage of labelling, one of the pursuer's witnesses, indeed, saying that that was "very rare." The question, however, is whether the defender, being in the knowledge—for, as he personally superintended the work, his knowledge is to be presumed—that bottles of the same kind as the one in question were more apt to burst than the other two kinds of bottles, he was guilty of negligence in the sense of the statute in continuing the use of the first class. An employer is certainly bound to use all reasonable precautions for the safety of his workmen, but it has been held in England that he is not bound to provide at once all the newest improvements and appliances, or to discontinue machinery in use among other traders, and I think it is the import of the evidence that bottles of the kind in question are still in general use. It is said by one of the pursuer's witnesses that the bottles with the inside glass stoppers covered with indiarubber are safer and cheaper than the others, and the suggestion is that the defender ought to have abandoned the use of these bottles, and resorted to those of the second class, which, I assume, are recognised as an improvement in the trade. But, considering that during

the process of labelling bottles, at which the pursuer was engaged when injured, the bursting of the bottle is admittedly of comparatively rare occurrence, it appears to me that the negligence suggested would be an extremely narrow basis on which to affirm the defender's liability. Special precautions were adopted by the defender where there was a known danger, as in the process of filling the bottles, but after they had passed through a number of hands it does not seem to have been thought necessary to guard against any particular risk.

This is the case which is distinctively made upon the statute, but there are several other grounds from which it is said that the fault of the defender is to be inferred. The operation of cleaning the bottles was very minutely described, and I understand the purpose of that was to show that the shaking of the bottles which attended the process was calculated to weaken the glass. But it was also attempted to be made out that the strength in the cleaning department was not sufficient, the safety of the workmen requiring that one particular person should be appointed to examine the bottles. It seems to me that that was pretty much the duty of the washerwoman, and there is not, in my opinion, sufficient evidence to show that she was not a competent person. No doubt in the bottle produced there was a slight chip in the mouth, and the washerwoman in the witness-box, with the bottle in her hand, said she could see nothing wrong with it. Upon this circumstance the pursuer founded an argument that her eyesight was plainly defective, and that she was not a proper person to be entrusted with the responsible duty that was put upon her; but here, again, the point is very narrow, and I think it is very doubtful whether she meant anything more than that she saw nothing wrong with the bottle, and certainly it is not much the worse of the chip.

It was also made a point by the pursuer that he was not properly instructed in his duties when he entered the defendant's employment. As a general plea that is a very plausible one to put forward, but I am of opinion, in the first place, that it fails on the facts of the case, the witness Stevenson, the late foreman in the works, who is disposed to say as much as he can for the pursuer, distinctly contradicting his statement that he was not instructed. But the plea has not much application to the circumstances of the case, partly because the pursuer had been at the works before, and knew that the bursting of bottles was a thing that sometimes happened, but more especially because no amount of warning given to the pursuer would have been of any use to him so long as he was not provided with the means of protecting himself from the fragments of the broken bottles if that were necessary. This consideration leads up to the real difficulty, viz., whether, in failing to furnish his workmen with masks, the defender neglected a reasonable precaution incumbent upon him, and is, therefore, personally in fault. The evidence of the witness Cox, for the pursuer, is material, and certainly consists with the reason of the thing, for nothing could be more obvious than the suggestion that people having to deal with bursting bottles should have at least their faces protected. And, accordingly, if this witness had been corroborated, I do not very well see how a decree against the defender could have been avoided. That he is not corroborated, but, on the contrary, is contradicted by the corresponding witness for the defender, would seem to show that there is a difficulty in setting up the practice on which the pursuer relies.

It was a most vital point for the pursuer to establish a practice of wearing masks in the process in course of which the pursuer was injured, and on the evidence in the case, considering that on both sides, I would not be warranted in holding that he has done so. The defender's contention is that the real danger lies in the bottling department when the bottles are being filled; that the bursting of a bottle when being labelled is comparatively rare; and as that naturally leads up to a practice of dispensing with masks, I cannot give effect to an alleged practice to the contrary upon the testimony of one witness, who is separately contradicted. But the difficulty at this stage of the case is not yet finally disposed of. Two witnesses, a lad of the name of Pyper, and the pursuer's brother, say they asked the defender for masks, and that they were practically refused. If this were held to be reliable evidence, a very serious point would be raised against the defender. But, in the first place, the fact is distinctly denied by the defender; and, secondly, the evidence

of Murray applies only to the process of bottling. There is no doubt that the old masks referred to were in the works in connection with the requirements of the old bottling machines only, and there is no person but the lad Pyper, who brings masks into view in the process of labelling, and that does not seem to me sufficient evidence to support a risk.

Looking to the nature of the decree, the youth of the pursuer does not appreciably affect the precautions which were incumbent on the defender, for, as already observed, warning without affording protection would have been of no avail, and a man was as liable to injury as a boy. My opinion on the whole case is that the bursting of the bottle in question was one of the risks incident to the work in which the pursuer was properly enough employed, that it has not been shown either by the evidence of previous complaint or the recurrence of similar events that there was a duty on the defender to adopt any special precautions, and that the occurrence in question, in itself sufficiently distressing, must be regarded as an accident. The finding of the Sheriff was therefore for the defender with costs.

Pursuer's agent—T. R. Gillies.

Defender's agent—J. S. Butchart.

MYERS' CATTLE SPICE.

AT Leicester Assizes on January 23, before Mr. Justice Smith, an action was brought by Mr. Thomas Myers, of Hull and York, manufacturer of Myers' "Royal" cattle spice, to recover 52*l.* 10*s.*, the amount of a dishonoured bill of exchange, given by William Blood, a baker and dealer at Barleythorpe, near Oakham. Mr. Lawrence, Q.C., and Mr. Harris appeared for the plaintiff; and Mr. Buszard, Q.C., and Mr. Sills for the defendant. It appeared that Mr. Myers called upon the defendant and asked him to become an agent for his cattle spice. He got the defendant to give an order for 2 tons of spice, at 26*l.* 5*s.* per ton, which was delivered. The defendant gave a four months' bill of exchange, which was blank when signed. When asked to meet the bill, the defendant denied that he had ever given any order for 2 tons of spice, that he did not want it, and that it had been foisted upon him by Mr. Myers, who told him that he would only be responsible for the cash which he received as agent. Mr. Buszard declared that this was a swindle upon an ignorant man, who had been duped into signing what was converted into a bill of exchange. Plaintiff, on being cross-examined by Mr. Buszard, demanded an apology for using the word "swindle," but the Judge said he could not do so. Plaintiff denied that he had visited this outlying village for the purpose of finding a "victim" upon whom to foist this stuff. Defendant's wife emphatically declared that she and her husband firmly believed that he was signing blank sheets of paper. His Lordship left it with the jury to say which of the parties they believed. After an absence of two hours, the jury returned a verdict for the defendant, for whom judgment was entered, with costs.

VALVALINE.

AN action heard before Mr. Justice Pearson in the Chancery Division of the High Court of Justice on January 11 is worthy of record. The plaintiffs were Leonard & Ellis, of New York (who have agencies at Liverpool and Manchester), who applied for an injunction to restrain the defendant, Mr. Wells, from using the word in reference to a certain machinery oil. The plaintiffs claimed to have registered the word in March, 1878, as the trade-mark used by them for five years prior to that date as descriptive of the mineral oil rectified and sold by them for lubricating purposes. They claimed to have invented the word, and they had registered it in this country in two forms, in one of which "Valvaline" was written across a kind of perforated shield, and as a word simply, and they submitted that by five years' registration they had acquired the exclusive right to the use of the word. The defendant, on the other hand, maintained that the registration was a nullity, it being the custom of the trade to use the termination *line* in distinguishing different oils and oleaginous preparations, and valvaline being understood to mean simply valve oil. He in return prayed the Court to expunge the plaintiffs' registration of the word "Valvaline" alone, and to add to their other registered mark a note disclaiming the exclusive use of that word. The defendant used as the trade-

mark of the valvaline manufactured by him a device representing Britannia in a nautilus shell, drawn by three whales or porpoises, and it was argued that no one could be deceived into purchasing his oil for that of the plaintiffs'. Mr. Justice Pearson said there could be no doubt that the word "valvaline" was a barbarous combination, but the meaning intended to be conveyed by it was simply oil to be used for the purpose of lubricating valves. No doubt Mr. Ellis, the inventor of the word, had a right to use it, but it was clear that the trade-mark used by the plaintiffs' firm in America was not "Valvaline" alone, but the word in combination with something, and it was not till after they failed in an action to restrain the use of the word "valvoleum" that they were minded to register it in this country as their trade-mark. He was of opinion that till February, 1878, they never considered it as their trade-mark, but used it merely as a description of their goods, and that at that date the word had become known as the designation of a particular kind of oil fit for lubricating valves and other parts of machinery. As valvaline expressed simply valve oil, it was not a proper word to be registered as a trade-mark, and Her Majesty's subjects generally could not be excluded from using it simply because Messrs. Leonard & Ellis wished to use it as their trade-mark. He, therefore, ordered the discharge from the Register of the improper entry of the word as a trade-mark, but did not see the necessity for ordering the insertion of a disclaimer as a note in the other registered mark. He refused the motion, with costs.

Suggestions.

FROSTING GLASS.—To give glass this appearance, coat it with sulphate of magnesia diluted in beer, with a little dextrine added.

A CORRESPONDENT of the *Pharm. Zeitung* tells another correspondent that benzoic acid and camphor can be made into a pill mass by means of powdered soap, 6 parts; water, 1 part; and calcined magnesia, q.s.

WHY should not quinine and orange wine be aerated, sent out in champagne-bottles, and with a tap, like koumiss, for drawing off small quantities? The idea is suggested by an orange champagne made by a London firm.

MILDER MUSTARD POULTICE.—Dr. Tyson, of Philadelphia, recommends the addition of molasses to mustard in making plasters. This furnishes a mild persistent counter-irritant, which can be worn for hours.

TO KEEP CARBOLIC ACID FLUID.—Dr. Gilman, of Lowell, Mass., says that the addition of 1 oz. of 95 per cent. alcohol to 1 lb. of pure carbolic acid after liquefaction will maintain it in a liquid form, and the mixture will form a clear solution with oils.

"DRINKS" says that soda and milk is now recognised as a popular beverage by some; it may shortly lead to "sparkling milk." This will, of course, be milk impregnated with carbonic acid gas by the usual mechanical means, and bottled in the usual way as ordinary effervescent drinks. It is stated that this aerated milk will keep for an indefinite period.

KOUMISS.—The quantities of material used should be based upon the analysis of the original komiss prepared by the Tartar tribes, that the finished product may contain the same percentage of casein, lactic acid, &c., as the original. The amount of cane-sugar to be added should be regulated as to the quantity of alcoholic fermentation intended, and milk sugar, if added, should only be as much as would be contained in the same quantity of milk or whey as of water added. As to temperature, it should, when first bottled, be allowed to stand, with one or two shakings, in a room of 70° to 75° Fahr. for twenty-four hours, when fermentation will have begun. Then put in an ice-box, in which the temperature should never exceed 55° Fahr. Below this fermentation will be carried on gradually, and at a much lower temperature apparently stop entirely. About two weeks is generally considered young koumiss; three to four weeks, medium; and six weeks to several months, old. It is doubtful, however, whether it would pay the average pharmacist to go to all the trouble and nursing it, so to say, for a few bottles of koumiss at a time.—H. W. C. Martin, Chicago.



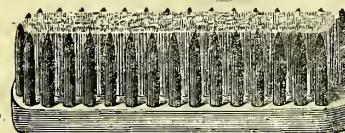
THE DANGERFIELD IGNITING MATCH CASE.

THIS article, which is one of the American inventions advertised in our pages, is a very neat and useful convenience

for the pocket or the household. It is a flat metal case, about the size of a gentleman's card-case, but thinner. It holds about a dozen matches, which lie in single file. A little lever at the bottom of the case pushes the bottom match through an aperture, and lights it as it goes. The cases are made of various metals, Bonanza and nickel silver, oxide of gold, and tin.

MAW'S PATENT "I. R. & B." TOOTH-BRUSHES.

A NOVELTY in tooth-brushes is always worth the attention of the chemist and druggist, who still remains, we hope, the chief purveyor of these instruments to the public. Messrs. Maw, Son & Thompson's new patent brush is a combination of indiarubber and bristles. Bristles occupy the centre of the brush, and are surrounded by a guard of red rubber in



single stems. The rubber performs more than a merely honorary office, as it considerably promotes the comfort in brushing the teeth, especially of those whose gums are tender; while, at the same time, the indestructible rubber serves as a fence to protect the bristles, and actually does check the tendency of the latter to break down all round the outer edge. These new brushes are supplied to retail at 1s.

PIMELINE.

PIMELINE is another of the petroleum products introduced for pharmaceutical and other purposes. It is perfectly odourless, tasteless, and neutral. The Pimeline company claim that their process enables them to supply it cheaper than similar products. They supply it in three qualities, the finest being a pure opal white, the next yellow, and the lowest a dull orange. Messrs. Roberts & Co., of Bond Street, and Paris, are agents for this country and France.

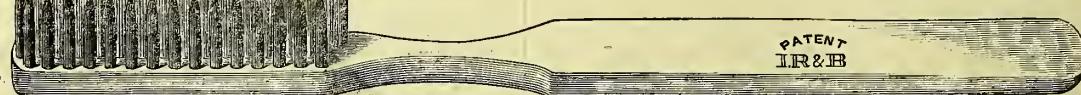
BRYANT & MAY'S LUMINOUS MATCH-HOLDERS.

THE idea of applying the luminous paint to receptacles for matches in bedrooms was suggested by the patentees of the paint some years ago, but Messrs. Bryant & May have quite lately put the suggestion into practice. They have introduced a number of styles of match-cases in decorated tinplate, each bearing a luminous tablet, and each fitted with a box of their patent safety-matches. That no extravagant charge is made for the luminosity is evidenced by the fact that a decorated slide, with box of matches and luminous tablet, all complete, can be bought for 2d. The decorated tinplate-ware is made by Messrs. Bryant & May by a patent process, and is supplied in all sorts of forms of boxes, for mustard, coffee, seidlitz-powders, pills, and other things.



SCOTT'S EMULSION OF PURE COD-LIVER OIL WITH HYPOPHOSPHITES OF LIME AND SODA.

THIS is an American preparation, which has for many years been a standard in medical practice in the United States, Canada, and the British Provinces, and is now being introduced to the profession of Great Britain. It contains 50 per cent. of pure Norwegian cod-liver oil, 6 grains of hypophosphate of lime, and 3 grains of hypophosphate of soda to each fluid ounce. Glycerine is used in the emulsifying process instead of saccharine matter, and thereby fermentation and consequent chemical change are prevented. That cod-liver oil, in the form of emulsion, is more readily digestible, in consequence of the state of fine division in which it is presented to the pancreatic juices, than in its pure condition, is recognised; and it has been found that by this combination with glycerine the tendency to eructations is entirely prevented. The emulsion is pleasant to the taste, has a beautiful creamy appearance, and, judging from the numerous testimonials from eminent physicians here and abroad, gives great satisfaction to those who have tested its merits. The formula is published, and the preparation is neither patented nor registered, as it is quite distinct from any secret remedies. No doubt many patients who have a prejudice or repugnance to ordinary cod-liver oil would take the emulsion without difficulty. It is neatly put up in half-pints and pints in cartons. The manufacturers are Scott & Bowne, of New York; and the agents for Great Britain are F. Newbery & Sons.



DRY SULPHURIC ACID.

UNDER the title of dry sulphuric acid, a German firm, Messrs Vorster & Güneberg, of Cologne, have patented a method of preparing sulphuric acid in a dry form, so that it may be packed and transported without danger, and with far less expense than in the liquid state. They have found that infusorial earth (Kieselguhr), in a dry and finely-powdered condition, is capable of absorbing from three to four times its weight of sulphuric acid of 66° without losing its powdery character. This powder is packed in lead-lined iron cases, and can be sent anywhere over land or sea without danger of breakage and without having to pay extra freight. Sulphuric acid, so prepared, is said to be as suitable for petroleum refining, dynamite manufacture, and for the preparation of mineral waters as in its natural state. In other cases it is said to be quite practicable to recover the acid in fluid form, leaving the infusorial earth still suitable for dynamite manufacture.

PROFESSOR TUSON'S PATENT DISINFECTANTS.

PROFESSOR TUSON has given a good deal of attention to disinfectants, and some time back he took out a patent for his combinations. Professor Tuson relies chiefly on sulphurous acid, but his aim is to present it in a condition which makes it readily and comfortably applicable under any conditions. In a liquid form, and in combination with chloride of zinc, this disinfectant was introduced a few years ago under the name of "Sporokton." Now it will be simply known as Professor Tuson's liquid disinfectant. A powder has also been just lately produced, which, in the dry form, is quite odourless. It contains sulphite of lime, sulphate of alumina, and sulphate of zinc. On the application of a little

moisture sulphurous acid is given out gradually and for a very long period. These disinfectants, it will be noted, are not only aërial in their scope, but are germicidal as well, the liquid one especially, and are thus applicable for the cleansing of sick-room furniture and appliances. In one or the other form they are applicable for all disinfecting purposes. At a recent soirée of the Central Veterinary Society some experiments were shown proving immediate action of the disinfectants on ammonia, and also on sulphuretted hydrogen. A part of a pony's leg was also exhibited which had been kept pure for over four months by a single application of a very dilute spray of the liquid disinfectant. Messrs. A. Boake & Co., of Stratford, are manufacturing these products, and Messrs. Baiss Brothers & Co. are wholesale agents.

CONDENSED MARES' MILK.

THE Aylesbury Dairy Company (Limited) are entitled to the gratitude of medical men for the scientific attention they have devoted to the production of all forms of milk foods. They have established a milk laboratory, where they prepare koumiss, artificial human milk, peptonised milk, and other preparations. They have lately commenced the importation, from Russia, of a condensed mares' milk, manufactured by Carrick's Russian Condensed Mares' Milk Company, at Orenburg. This is supplied in tins, which sell at 5s. each, the contents being equal to two quarts of mares' milk condensed down to one-eighth of its bulk. Dr. Grigg, physician to Queen Charlotte's Lying-in Hospital, and other physicians have been giving this product to infants who could not digest ordinary foods, and, though Dr. Grigg's experience is yet small, he reports excellent results so far as he has tried it. In Russia it has been more extensively used, and is largely adopted in many institutions.

Personalities.

WILLIAM MARDEN, of Manchester, has reopened the shop at 251 Ashton New Road, Manchester, lately carried on by Mr. Ball.

MR. EDISON is credited with the smart observation that it requires just as much ingenuity to make money out of an invention as to make the invention.

MR. D. S. ANDERSON, of Forfar, has taken to the business of his late father, Mr. James Anderson, of Musselburgh, and now carries on both.

MESSRS. RAYNER & Co. have opened a handsome pharmacy at Leytonstone, Essex. The fittings are in oak and walnut, modern style, and were executed by Mr. Lloyd Rayner.

MR. RUMSEY'S business at 193 Brixton Road, S.W., has been disposed of to Mr. A. Sheppard (late of Fulham Road), through the agency of Messrs. Taylor & Co., 38 Walbrook, London, E.C.

THE business of the late Mr. Charles Wood, at the Medical Hall, 15 Market Place, Wigan, has been transferred to Mr. B. W. Price (late of Chelmsford), through the agency of Messrs. Taylor & Co., of 38 Walbrook, London, E.C., who also conducted the valuation.

MR. BALLART, of Truro, would seem to have had some experience and to retain some prejudices. He advertised lately in the *Western Morning News* as follows:—

TO CHEMISTS.—Wanted, for a few months, a young Manager, single, non-inebriant and unfumigating. First instance send photo, stating age, colour of hair, eyes, and complexion; also giving date of certificates, but no testimonials.

Perhaps the ladies of Truro are exacting, and Mr. Ballart may think them worth pleasing in regard to the colour of his manager's eyes.

MR. R. DRESSER, chemist, &c., The Pavement, York, has taken as partner Mr. M. Folkard, late of Hadleigh, Suffolk. The valuation was made for the respective partners by Mr. C. B. Martin, Barnard Castle, and Mr. J. Maltby, Lincoln.

MR. A. W. SMITH, pharmaceutical chemist, of Rye, occupied the chair at the annual dinner of the Rye District Commercial Association on January 29. Mr. Smith has been President of that Association for the past seven years.

MR. JOHN CALVIN VAN SCHAACK, of Chicago, till lately a partner in the house of Van Schaack, Stevenson & Co., has separated from that firm, and is coming to Europe with the intention of representing Messrs. Burroughs, Wellecome & Co. on the Continent.

MR. C. G. BREADNER, of 256 Waterloo Road, and 77 York Street, Manchester, has bought the business of Mr. E. Walsh, at 209A York Street, Cheetham, and now carries on all these businesses. Mr. Walsh confines himself to his wholesale business in Clarence Street, Cheetham, Manchester.

AT the end of March the Austrian botanist, Mr. Joseph Knapp, of Vienna, Conservator of the Herbarium of the Austrian Pharmaceutical Society, will go to Northern Persia (Azerbaijan), with a scientific expedition, for exploring the flora and fauna of that little-known province.

MESSRS. FELL & BELL have bought the business lately carried on by Messrs. Tomlinson Brothers at Preston. Mr. Thomas H. Waite, of Ealing, valued for the buyers, and Mr. Brett for the vendors. Business will still be carried on in the name of Tomlinson Brothers.

TESTIMONIAL TO MR. P. L. SIMMONDS.—On January 25 a banquet was held at the Holborn Restaurant, when a presentation was made to Mr. P. L. Simmonds, in recognition of his valuable services as British Commissioner at the Amsterdam Exhibition. The chair was occupied by Mr. Alderman De Keyser, who was supported by Sir W. Ellis, Messrs. Rimmel, Brinsmead, and other gentlemen. After the banquet the chairman presented Mr. Simmonds with a cheque for 650*l.*, subscribed for by many of the leading London and provincial firms who were exhibitors at the recent exhibition.

DR. W. INGLIS CLARK was admitted to partnership in the firm of Duncan, Flockhart & Co., of Edinburgh, on January 1, 1884. Dr. Clark's scientific career, which has led him to this honourable position, has been a singularly brilliant one. He was apprenticed to the firm in 1871, passed the Minor examination in 1873, and the Major in 1877. In the latter year also he took a B.Sc. degree in physical science at Edinburgh University, following this in the next year by taking his D.Sc. in organic chemistry. In his University career he won two valuable scholarships, namely, the Hope Prize Scholarship of 40*l.* for analytical chemistry, and the Baxter Physical Science Scholarship (60*l.*), tenable for two years, awarded to the most eminent B.Sc. of the previous two years. Dr. Clark is one of the examiners of the Pharmaceutical Society, and is a member of the Council of the North British branch, and he has written numerous scientific papers, several of which he has contributed directly to this journal.

M. CHEVREUL.—A correspondent of the *Lancet* gives some particulars of M. Chevreul, the eminent French chemist, now within two years of his century. He is generally lightly clad, and wears no hat unless under circumstances in which he is obliged to appear in one; indeed he hardly needs a hat, as he has most luxuriant hair. He is constantly at work, allowing only ten minutes for each of his meals, of which he has but two a day. He breakfasts at seven, the repast consisting of a plate of meat and another of vegetables, which he eats together, the whole being washed down with two tumblers of water. He is said to have never drunk a glass of wine in his life. He dines at seven in the evening, and takes nothing between the two meals except a small loaf at noon, which he eats standing and by the side of his alembics. The writer who relates this states that on a visit to M. Chevreul he found him in the attitude just described, and on expressing his surprise at the frugal manner in which he lived, M. Chevreul observed: "I am very old (this was in 1874), and I have yet a great deal to do, so I do not wish to lose my time in eating." This example of longevity is certainly a good argument in favour of temperance and regularity of living.

THE business of Messrs. Perks & Co., 90 King Street West, Hammersmith, has been disposed of to Mr. Mann (of Wells), through the agency of Messrs. Taylor & Co., 38 Walbrook, London, E.C.

THE will of Thomas Mackrell, late of Barnstaple, formerly a chemist, deceased, dated July 29, 1878, has been proved by William Fletcher and Richard Kelley Geldard, the surviving executors, Thomas Hooper Law, the other executor, having died in the testator's lifetime. The deceased gives legacies of 100*l.* each to his two servants, and, after providing for an annuity of 1,000*l.* a year to his sister, he bequeaths the following legacies:—Mr. George Muller's Orphan Houses, Ashley Down, Bristol, 5,000*l.*; Bristol Blind Asylum, 1,000*l.*; Bristol Institution for the Deaf and Dumb, 1,000*l.*; Cottage Hospital, Newton Abbot, 300*l.*; Cottage Hospital, Lynton, 50*l.*; Children's Hospital, Fort Road, Bristol, 50*l.*; Seamen's Orphan Asylum, Devonport, 500*l.*; Seamen's Hospital Society, Greenwich, 500*l.*; Penrose's Almshouses, Barnstaple, 2,000*l.*; Storwood's Almshouses, Barnstaple, 500*l.*; Blue Coat School, Barnstaple, for boys, 200*l.*; Paige's Almshouses, Barnstaple, 100*l.*; North Devon Infirmary, Barnstaple, 2,000*l.*, to be capitalised; and Barnstaple Dispensary, 200*l.*, also to be capitalised; and the Deaf and Dumb Institution, Exeter, 500*l.* The testator directs that the residue of the moneys arising from his estate shall be paid to the trustees for the time being of the charity lately founded by him, and known as Mackrell's Charity, Wolborough, Newton Abbot, for building and endowing six or more additional houses to those already erected, if they shall see fit, and for the augmentation of the Endowment Fund of the same charity. The personal estate was sworn under 52,000*l.*

Trade Notes.

MESSRS. ALLEN & HANBURYS announce an increased discount on their *Café Vierge*.

**

MR. JOHN HALL MORRIS has recently purchased the business of Mr. W. A. Cartwright, at 62 Blackburn Road, Astley Bridge, Bolton.

**

MESSRS. R. H. HALLETT & Co., manufacturing electricians, of Leicester, send us their trade-lists of apparatus and appliances for all kinds of electrical work and experiments. The prices quoted seem, in many instances, advantageous.

**

WE regret to find that the heading "Isinglass" was omitted from the Index to the Diary. The name of Messrs. Gridley & Co., of Bishopsgate Avenue, Camomile Street, ought to have been entered there. Their advertisement appeared on page 242.

**

SOME disappointment was experienced by some of our correspondents who failed to obtain a neat little box of rubber type advertised in this journal from Cork. They will find a similar kind of article advertised in this number by Mr. H. O. Leeson, of Nelson Square, Blackfriars.

**

MESSRS. LYNCH & Co. have issued a new and bulky illustrated catalogue of 262 pages, exclusive of advertisements. Besides the general lists of sundries, surgical instruments, shop-fittings and proprietary articles, sections for Benbow's perfumery and lozenges are added to this catalogue.

**

HOGE'S HONEY COMPANY (LIMITED).—Formed to acquire the honey business of Messrs. W. M. Hoge & Co., together with their proprietary rights in Hoge's horsehorn honey and apiaries in America. Capital, 80,000*l.* in 17. shares. Directors—E. Goodwin, 64 King William Street, E.C.; W. M. Hoge, 35 Leconfield Road, N.; E. E. Jones, 4 Bishopsgate Street, E.C.; J. Newsom, Holborn Viaduct; G. M. Smyth, 36 Arlington Street, N.; T. S. Stephenson, 64 King William Street, E.C. Messrs. Hoge and Stephenson to be managing directors. Office, 64 King William Street, E.C.

MESSRS. BARCLAY & SONS have also issued a new "net cash list" of proprietary medicines and miscellaneous articles. The net-cash system is one of the satisfactory features of modern business, and it is gratifying both to the wholesale and retail trade to find it extending.

**

WE have received samples of gelatine lozenges from Mr. T. Kerfoot, manufacturing pharmaceutical chemist, of the Medlock Vale Works, Manchester, who makes a specialty of these. They are excellently-made lozenges, of fine flavour, and worthy of attention.

**

MESSRS. HYDE & Co., of St. Bride Street, E.C., have brought out a "combination copying and writing fluid," very pleasant to use. It writes a delicate blue-black, or rather blue-grey, and dries thoroughly black. It also copies well, and has this advantage over most copying inks that, when folded, it does not soil the opposite page.

**

MESSRS. E. CLARK & Co., of Battersea, are pushing vigorously essences of coffee and of coffee and chicory. It is evident that they aim to secure the custom of the economical and the fastidious alike. Their essence of coffee compares well with most in the market. The coffee and chicory is a pleasant preparation, and the bottle is temptingly large.

**

MESSRS. R. HOVENDEN & SONS have issued a new illustrated catalogue of the fancy goods in which they deal so extensively. The catalogue contains over 400 pages, and, as it comprises particulars of a number of articles which chemists often sell, such as combs and brushes, and of many others which they only occasionally deal in, it will no doubt be found useful to have at hand.

**

WE have received a copy of a new edition of Messrs. Francis Newbery & Sons' net cash list of proprietary medicines and sundries. The list of proprietary medicines occupies 168 octavo pages. There are, besides, over fifty pages of an illustrated list of druggists' sundries, and nearly 100 pages of advertisements. A great amount of care and skill is evidenced in the arrangement of this list for convenient reference.

**

MR. E. GRIFFITHS HUGHES, of Manchester, has published a little pamphlet that is likely to help on the business both of druggists who will distribute it, and the sale of his own goods. It is a really useful disquisition on insects and insecticides from a gardener's point of view, the insecticide recommended being, of course, his own fir-tree oil. Good figures are given of the chief insect-plagues of the much-enduring cultivator of plants, and something is said of mildew, wasps, animal parasites, including those of men and birds, and ringworm.

**

AMONG our card advertisements will be found an announcement from Mr. A. H. Riise, of Apothecary's Hall, St. Thomas, W.I., who has sent us an interesting circular describing the manufacture of his double-distilled bay spirit or bay rum. He explains that there are several varieties of the bay-berry tree in the West Indies scarcely to be distinguished botanically, but with different odours; that a small quantity of the wrong kind may entirely spoil the product of a distillation; that drying the leaves before distilling them causes a distinct loss of flavour; that the ripe berries produce a bay spirit with a much stronger flavour than the leaves, but cost fifteen to twenty times as much as the latter, and are therefore mixed with the leaves in a comparatively small proportion. Next comes under consideration the rum that should be used, good St. Croix, considerably stronger than what is generally brought from there; and the method of distillation, best being by steam, none of the fine aroma being lost. All these precautions commend themselves to the pharmacist, and Mr. Riise states that he observes them all. He knows of no other bay rum distilled by steam, the open fire being used for most, others being simple solutions of bay oil in rum or even alcohol. He also prints some testimonials from American druggists.

We have received from Messrs. Fletcher, Fletcher & Stevenson, Holloway, a neat little pocket-book, entitled "Memorabilia," in which, to various items of information, such as doses of non-official remedies, postal and other reference matter, are added a few ruled blank pages. The body of the pamphlet is devoted to remarks on Fletcher's concentrated liquors for chemical syrups, with testimonials from a number of pharmacists in their favour. To the testimonials are attached facsimiles of the signatures of the writers, an addition which certainly adds to the *bonâ-fide* appearance of the quotations.

* *

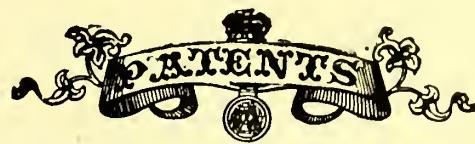
THE PURE WATER BEVERAGE COMPANY.—On January 19 a petition of this company for the winding-up of the company under the supervision of the court came before Mr. Justice Pearson in the Chancery Division of the High Court of Justice. Mr. Young, in support of the petition, said the company was insolvent and unable to pay its debts. The only property possessed by the company was some leasehold premises of small value, which were occupied by them for the purpose of manufacturing distilled mineral waters. Mr. Eyre and Mr. Beddall supported the petition on behalf of creditors; and, there being no opposition, Mr. Justice Pearson made the usual supervision order.

* *

THE 'SANITAS' COMPANY.—The annual meeting of this company was held on the 1st instant, at the Works in Bethnal Green, Mr. F. H. L. R. Moll in the chair. The report of the directors for the year 1883 stated that the sales effected by the company amounted to 14,118*l.* 2*s.* 11*d.* as against 11,443*l.* 7*s.* 4*d.* in the preceding year, showing an increase of 2,674*l.* 15*s.* 7*d.* or above 23 per cent. The balance to credit of revenue on the year's trading, after providing for bad and doubtful debts, meeting the expenses of additional plant necessitated by the growing business, and adding the amount carried forward from last year of 22*l.* 14*s.* 5*d.* amounts to 3,453*l.* 8*s.* 3*d.* From this sum 660*l.* has been paid during the year for interest on the debentures, 575*l.* for the interim dividend for the half-year ended June 30, 1883, leaving, after payment of directors' fees, and percentages upon profit due to the managing director and secretary, a balance of 1,815*l.* 18*s.* 9*d.* available. The directors recommended that a final dividend of 7*½* per cent. per annum, free of income-tax, be declared, making, with the interim dividend already paid, a total distribution for the year equal to 10 per cent. per annum, free of income-tax. This would absorb 1,725*l.* leaving a balance of 90*l.* 18*s.* 9*d.* to be carried forward to 1884.

The chairman, in moving the adoption of the report, congratulated the shareholders on the steady increase of their business. Out of the profits obtained they had made considerable additions to the plant, the debenture interest had been paid, and an interim dividend had been distributed, and they now recommended a further dividend, which would increase the return to 10 per cent. for the year. Their products were now supplied to more than 900 Corporations, local boards, railway companies, hospitals, and other public bodies. They had added two new products to their manufactures—"Sanitas" disinfecting soap powder and "Sanitas" disinfecting emulsion. The latter enabled them to supply the "Sanitas" oil in a condition miscible with water. The company had besides entered into an agreement with Messrs. Hargreaves Brothers & Co., of Hull, for the manufacture and sale by them of "Sanitas" disinfecting blue, and for the use of the company's trade-mark and title "Sanitas" in connection therewith. A similar arrangement had been made with the Hull and East Riding Drysalters' Company, in respect of the manufacture and sale by them in small packets (only) of "Sanitas" disinfecting dry soap. Mr. Kingzett (the managing director) seconded the motion, which was carried, and, after a few remarks had been made respecting the sale or lease of the foreign patents, the proceedings were closed by votes of thanks to the directors for their able management.

WHERE THE GOLD GOES.—It has been calculated that the 17,000 dentists in the United States pack into the teeth of the American people about one ton of pure gold annually, and that in the twenty-first century all the gold in the world will be buried in the graveyards.



[The following list has been compiled expressly for THE CHEMIST AND DRUGGIST by G. F. Redfern, Patent Agent, 4 South Street, Finsbury, London, and at Paris and Brussels.]

Applications for Letters Patent :—

Aerating-apparatus.—615.—January 4, 1884.—A. M. Day and H. Des Forges, both of Esher Street, Westminster, London. Improvements in apparatus for aerating liquors.

Aerating-apparatus.—1544.—January 16, 1884.—J. MacIlwraith, of Glasgow, and T. Thomson, of Barrhead, Renfrewshire. Improvements in apparatus for aerating or oxidising liquids.

Aerated Liquids.—1948.—January 22, 1884.—F. W. Griffin, of Bristol. Improvements in the manufacture of aerated and other liquids for medicinal purposes.

Alkaline Silicates.—1343.—January 12, 1884.—S. le Thomas, of Palace Chambers, Westminster, London. Improvements in the manufacture of alkaline silicates and other alkaline salts.

Alkaloids of Quinine.—1472.—January 15, 1884.—F. Wirth.—A communication from P. Giacosa, of Turin. Improvements in the manufacture of the alkaloids of quinine.

Ammoniacal Phosphates.—961.—January 8, 1884.—W. Martin, of Milford Haven, South Wales. An improved process for the manufacture of ammoniacal phosphates or phosphites.

Apparatus for Opening Bottles.—1181.—January 10, 1884.—C. L. Watchurst, of Blessington Road, Lee, Kent. Improvements in apparatus for opening aerated-water bottles.

Apparatus for Spreading Plaster of Paris on Bandages.—1902.—January 22, 1884.—J. Hinton, of Chancery Lane, London. Improvements in machinery or apparatus for spreading plaster of Paris on bandages.

Bunion and Corn Pad.—623.—January 4, 1884.—P. J. Kennedy, of Dublin. An improved pad or cushion for corns, bunions, and such-like diseases of the human foot.

Binitro-hydro-cellulose.—981.—January 8, 1884.—H. J. Haddan.—A communication from J. Hagemann, of St. Anton, Tyrol, Austria. A new or improved manufacture of binitro-hydro-cellulose and of explosives containing the same.

Bottle-cleaning Apparatus.—1245.—January 11, 1884.—M. Pierce, of Wexford, Ireland. An improved apparatus for cleaning the interior of bottles and other vessels.

Bottle-wiring Machine.—1617.—January 17, 1884.—H. J. Allison.—A communication from O. C. Carpenter, of Brooklyn, New York United States. Improvements in a machine for wiring the corks of bottles.

Back-supporter.—1907.—January 22, 1884.—H. M. Tarrant, of Stoke Newington, London. An improved back-supporter for persons suffering from spine disease, stooping-habits, or round shoulders, specially applicable to children to improve their walking and sitting postures.

Bottle-making.—2094.—January 25, 1884.—W. Holt and H. Tongue, both of Bolton-le-Moors, Lancashire. A new and improved method of making bottles.

Bottle-filling Machines.—2202.—January 26, 1884.—A. P. Scrase and W. Carter, both of Horsham, Sussex. Improvements in machinery for filling bottles with aerated and other liquids.

Basket for Bottles.—2480.—January 31, 1884.—E. G. Brewer.—A communication from H. Raclot, of Brussels. A new or improved basket or appliance for carrying bottles.

Colouring Matters.—816.—January 5, 1884.—L. Gans, of Frankfort-on-the-Main, and M. Hoffmann, of Mainkur, Germany. The manufacture of new colour-yielding products and of colouring matters therefrom.

Colouring Matters.—1032.—January 9, 1884.—W. P. Thompson.—A communication from M. E. Savigny, New York, United States. A new or improved colouring matter and process for obtaining the same.

Colouring Matters.—1074.—January 9, 1884.—J. P. Griess, of Burton-on-Trent. Improvements in the manufacture or production of colouring matters from the tetrizo compound of benzidine-di-sulphonic acid.

Colouring Matters.—1099.—January 9, 1884.—J. P. Griess, of Burton-on-Trent. Improvements in the manufacture or production of colouring matters obtained from sulpho-derivatives of benzine and in the preparation of such sulpho derivatives.

Carbonic Acid.—1980.—January 22, 1884.—J. Harrison, of Gowrie Road, Battersea, London. Improvements in the production and use of carbonic acid for refrigerating and aerating.

Colouring Matters.—2269.—January 28, 1884.—O. Hoffman, of Main-
kru, Germany. The manufacture of new colouring matters.

Casing for Pharmaceutical Substances.—1531.—January 16, 1884.
T. S. Stephenson, of King William Street, London. A new or
improved casing for pharmaceutical substances intended for
outward application.

Carbonate of Strontia.—1998.—January 23, 1884.—I. Imray; a com-
munication from H. Leplay, of Paris. An improved process for
decarbonating carbonate of strontia.

Cruet, &c., Stands.—2086.—January 25, 1884.—H. Parker, of Birming-
ham. Improvements in eruct-stands, liquor-frames, egg-stands,
and other frames of a similar kind.

Cork, &c., Fastener.—2450.—January 31, 1884.—P. H. Senior, of Leeds.
Improvements in apparatus for fastening or securing corks, or any
other substance used for corking bottles, jars, or other vessels.

Conveying Light into Human Bodies, &c.—2676.—February 4,
1884.—P. Ward, of Greenwich. An improved method of and appa-
ratus for conveying the light evolved from an incandescent electric
lamp into parts or cavities of the human or animal body, for sur-
gical, dental, or other purposes.

Disinfectant.—852.—January 7, 1884.—A. F. Shilton, of Birmingham. A
new disinfectant.

Dyes.—903.—January 7, 1884.—I. Imray.—A communication from La
Société Anonyme des Matières Colorantes et Produits Chimiques
de Saint-Denis and Messrs. A. Porrier and A. Rosenstiehl, all of
Paris. An improvement in the manufacture of sulfoconjugate
violet dyes.

Distilling Water.—1199.—January 11, 1884.—J. K. Farnworth, of Bath.
Improvements in apparatus for distilling water.

Distilling-apparatus.—2445.—January 31, 1884.—W. Hood, of Se-
combe, Cheshire. An improved portable distilling-apparatus.

Distilling-apparatus.—2543.—February 1, 1884.—E. G. Brewer.—A
communication from D. Hainaut, of Boitsford, Belgium. Improve-
ments in distilling-apparatus.

Dentist's Suction-valve.—1417.—January 14, 1884.—J. P. L. Leman, of
Radcliffe-on-Trent, Nottinghamshire. A suction-valve for exhaust-
ing air from chambers in artificial palates for dental purposes.

Elastic Substance.—2630.—February 2, 1884.—A. Germot and L.
Rivière, both of Paris. An improved method of treating certain
resins for obtaining a new elastic substance.

Filtering and Decolourising Sugar, &c.—1985.—January 23, 1884.
—W. Fairweather; a communication from F. Klemann, of Schoe-
ningen, near Braunschweig, Germany. Improved means or pro-
cesses for filtering and decolorising sugar, liquors, syrups, and
saccharine juices.

Galvanic Batteries.—742.—January 5, 1884.—H. C. Blackwell, of
Manchester. Improvements in galvanic batteries for medical
purposes.

Hair-wash.—1247.—January 11, 1884.—A. J. Boult; a communnication
from H. Rothe, of Paris. An improved lotion or hair-wash.

Hydrochloric Acid.—2117.—January 15, 1884.—E. Carey, H. Gaskell,
jun., and T. Hurter, all of Widnes, Lancashire. Improvements in
the manufacture of hydrochloric acid and sodium carbonate from
sodium chloride.

Hydrated Oxide of Iron.—2146.—January 25, 1884.—J. G. Willans, of
Priory Road, West Hampstead, London. Improvements in the
manufacture of hydrated oxide of iron.

Inhaling-apparatus.—775.—January 5, 1884.—G. Stoker, of Cadogan
Terrace, Sloane Square, London. Improvements in inhaling-
apparatus.

Inhaling-apparatus.—1411.—January 14, 1884.—W. H. Taylor, of
Anerley, Surrey. Improvements in apparatus for facilitating the
treatment of diseases of the lungs and air-passages by antiseptic
inhalations.

Infant's Feeding-bottle.—785.—January 5, 1884.—W. S. Simpson, of
Battersea Park Road, and J. W. Phillips, of Walbrook, London.
An improved formation or construction of feeding-bottle for
infants.

Infant's Feeding-bottle.—1904.—January 22, 1884.—J. H. Redman,
Brighton. New form of nipple-shield for infant's feeding-bottle.

Making Fuel.—1864.—January 22, 1884.—W. P. Thomson; a communica-
tion from J. Leede, of Washington, and G. H. Ouray, of Florence,
both in the United States. An improved process for mixing with
earthy matter and for consuming as fuel petroleum or other hydro-
carbons, and apparatus for carrying the same into effect.

Ointment.—2107.—January 25, 1884.—C. Wilson, of Manchester. A new
or improved ointment.

Hydrochloric Acid.—2388.—January 30, 1884.—J. G. Tatters, of South
Shields. Improvements in the mode of obtaining or recovering
hydrochloric acid.

Purification of Water.—2501.—February 1, 1884.—W. Wyatt, of Elles-
mere, Shropshire. Improvements in the method of carrying
out the process of softening and purification of water, and in appa-
ratus for use therein.

Ammonic Chloride.—2491.—January 31, 1884.—T. Heskin, of Preston.
Improvements in the mode of producing or obtaining ammonic
chloride.

Phosphates.—1341.—January 12, 1884.—S. C. Thomas, of Palace Chambers
Westminster, London. Improvements in the manufacture of
phosphates.

Phosphates and Alkalies.—1342.—January 12, 1884.—S. G. Thomas, of
Palace Chambers, Westminster, London. Improvements in the
manufacture of alkalies and phosphates.

Products of Shale, &c.—1966.—January 23, 1884.—T. White, of Thorpe
Wesley, Yorkshire, and G. Dawson, Sheffield. Improvements in
the means and apparatus for the manufacture of useful products
from shale or bind or the refuse of coal and ironstone mines and
the like substances.

Stopping Bottles.—1184.—January 10, 1884.—A. Longbottom, of Drif-
field, Yorkshire. Improvements in internal bottle-stoppers.

Stopping Bottles.—1325.—January 12, 1884.—M. Haymans, of Leighton
Road, Kentish Town, London. Improvements in the construction
of bottle-stoppers for regulating the flow of ink or other fluids
from bottles.

Stopping Bottles.—1362.—January 12, 1884.—G. T. Neville, of Lich-
field, Staffordshire. A new or improved stopper for bottles and
other vessels.

Stopping Bottles.—1383.—January 14, 1884.—H. Parker, of Birning-
ham. Improvements in stoppering bottles and jugs.

Stopping Bottles.—1387.—January 14, 1884.—H. G. Hellier, of Shenley
Road, London. Improvements in stoppers for cans and bottles.

Stopping Bottles.—1424.—January 14, 1884.—F. G. Riley, of Vauxhall
Cross, London. Improvements in apparatus for filling and cork-
ing or stoppering bottles.

Stopping Bottles.—1726.—January 19, 1884.—W. J. Boyle and F. Smith,
both of Liverpool. Improvements in bottles and stoppers.

Stopping Bottles.—1954.—January 23, 1884.—C. Cockson, of Wigan. A
stopper for bottles to contain aerated waters or other liquids or
gases under pressure.

Stopping Bottles.—2026.—January 24, 1884.—A. B. McLean, of Neth-
Edge, Sheffield. Improvements in apparatus for stoppering
bottles.

Stopping Bottles.—2051.—January 24, 1884.—J. T. Markham, of Bur-
St. Edmunds, Suffolk. Improvements in stoppers for bottles for
containing aerated or gaseous liquids.

Stopping Bottles.—2500.—February 1, 1884.—W. Stott, of Manchester.
Improvements in or appertaining to bottles, and for use in other
cases where stoppers or taps are now required.

Sulphuric Acid.—1486.—January 15, 1884.—W. R. Lake.—A communica-
tion from M. A. Walsh, of Camden, New Jersey, United States.
Improvements in apparatus for use in the manufacture of sul-
phuric acid.

Securing Covers to Bottle-stands.—1896.—January 22, 1884.
M. Chapman, of Charterhouse Buildings, London. Improvement
in securing covers or cases to stands for holding bottles or other
articles.

Skin Compound.—1977.—January 23, 1884.—F. Hancock, of Newington
House, Edinburgh. An improved curative compound for treating
the human skin.

Separating Solid Impurities from Liquids.—2046.—January 24
1884.—B. H. Remmers, Glasgow. Improvements in apparatus for
separating solid impurities from liquids.

Syphilitic Remedy.—2113.—January 25, 1884.—E. Lawton.—A com-
munication from J. Carder and I. Parra, of Libano, Tolima, United
States. A new means or remedy for the cure of syphilitic and
gonorrhœic diseases.

Sulphate of Ammonia.—2118.—January 25, 1884.—E. Carey, H.
Gaskell, jun., and T. Hurter, all of Widnes, Lancashire. Improve-
ments in the treatment of sulphate of ammonia for obtaining the
ammonia in the free state and utilising the sulphuric acid.

Stopping Teeth.—2137.—January 25, 1884.—W. C. Davis, of St. Peters-
burgh Place, Leinster Square, Bayswater, London. Improvements
in the manufacture of amalgam for tooth-stopping for the use of
dentists.

Soluble Salts of Cerium.—2693.—February 4, 1884.—J. B. Mackey, o
Bonverie Street, Fleet Street, London. The preparation of new
soluble salts of cerium for medicinal purposes.

Treatment of Blood.—787.—January 5, 1884.—W. G. Strype, o
Wicklow, Ireland. Improvements in the treatment of blood to
prepare it for use as a manure or for other purposes.

Tannic Acid.—890.—January 7, 1884.—J. D. Wilson, A. Ambler, and J. C.
Marshall, all of Sowerby Bridge, Yorkshire. An improved process
or means for extracting tannic or tannic acid from mirabahum-nuts
and other vegetable products.

Truss.—1257.—January 11, 1884.—T. and J. Briggs, both of Burnley, Lan-
cashire. An improved construction of truss to be worn in case of
rupture.

Unstopping Bottles.—2675.—February 4, 1884.—D. Griffiths, Bir-
mingham. Improved apparatus for unstopping bottles,

Treating Residues from Soda Works.—2334.—January 29, 1884.—G. F. Redfern. A communication from H. von Miller and C. Opl, both of Kensem, of Austria. A new method of treating the residues from soda works.

Utilising Waste Liquids.—2638.—February 2, 1884.—F. Wirth. A communication from F. Graessler, of Constatt, Germany. Improved method of utilising certain waste liquids.

Specifications published during the month :—

Postage 1d. each extra.

1883.

1957. J. Edwards. Bottles, and stoppers for same. 6d.

2411. J. Erskine. Manufacture of colouring matters suitable for dyeing and printing. 4d.

2419. F. Foster. Machine for filling, corking, and syruping bottles. 6d.

2435. C. Pieper. Treatment of phosphatic slags for the production of phosphates of earths and manganese oxides of iron. 2d.

2456. J. Longmore. Refining or decolouring soap made from cotton-seed oil, &c. 2d.

2486. W. Brookes. Treatment of indigo for use in dyeing and printing.] 4d.

2502. R. Powell. Manufacture of sulphite of lime, &c. 2d.

2519. G. Chapman. Improvements in obtaining ammonia salts from gases generated by the combustion or destructive distillation of coal or other bituminous substances. 2d.

2524. M. H., T. L., and J. E. Hargreaves. Manufacture of laundry blue. 4d.

2549. W. G. Card and T. H. Cobley. Manufacture of tannic black and its application for paints, &c. 4d.

2559. A. Horne and J. Mancor. Feeding-bottles for babies. 6d.

2568. J. Siddeley. Apparatus for extracting paraffin, &c. from mineral and other oils. 6d.

2581. J. G. Van der Kaa. Stoppering bottles, jars, &c. 2d.

2582. C. K. Barnes. Machinery for the preparation and refining of fullers'-earth. 6d.

2599. W. W. Macvey and R. Sykes. Stoppering of bottles for aerated liquids. 6d.

2648. C. F. Claus. Manufacture of hydrate of strontia and hydrosulphide of sodium. 4d.

2686. A. F. Link. Manufacture of oil paints and varnishes. 2d.

2707. E. A. Brydges. Manufacture of soap. 2d.

2726. H. W. Sharpen. Apparatus for cutting corns on the feet, &c. 6d.

2735. S. Garnree. Manufacture of fabrics for surgical and medical dressings, and of surgical splints and supports. 4d.

2793. W. E. Gedge. Hermetically closing or stoppering glass bottles, jars, and similar vessels, and machinery therefor. 6d.

2798. W. H. Lake. Extracting glycerine from fatty substances. 4d.

2816. T. W. Appleyard, jun., and W. K. J. Longshaw. Manufacture of soluble black. 4d.

2883. A. J. Sankey. Stoppering bottles for containing aerated or gaseous liquids. 6d.

2893. M. Heffner. Extracting from the blood of animals a product for medicinal purposes. 2d.

2939. C. Davis. Colour-boxes. 6d.

3012. E. Holliday. Protecting corns, bunions, &c. 4d.

3021. J. Phillips. Stoppering or sealing bottles, jars, &c. 6d.



BANKRUPTS.

BARRETT, J. T., Upper Cleminson Street, Salford, ink and blacking manufacturer, trading as Barrett & Co. January 9.

METCALF, STEPHEN R., 41 Bagwell Street, Clonmel, apothecary, late in co-partnership as seed-dealer, under firm of O'Connell & Metcalfe. December 18.

LIQUIDATIONS.

CHAPMAN, GEORGE, 4 Charlton Terrace, Russell Town, parish St. George, Gloucester, oil and colour merchant. January 7.

GODWIN, HENRY, 138 City Road, oil and colour man. December 31.

HORSFALL, WILLIAM BRETT, 33 Red Lion Square, glue merchant. December 31.

MOSLEY, WILLIAM HENRY, 5 Paragon, Bath, dentist. January 3.

PHILLIPS, JOHN OLIVER CHAPMAN, 73 Colmore Row, Birmingham, and Edge Hill Farm, Four Oaks, Sutton Coldfield, surgeon, dentist, and farmer. December 31.

WHITEHEAD, SAMUEL HENRY, & WILLIAM DANIEL HOLBROOK, 6 Todd Street, Manchester, druggists' sundrymen, trading as Whitehead, Holbrook & Co.; W. D. Holbrook also as agent for vinegar, 1 Corn Exchange Chambers, Haughton Ditch, Manchester, January 9.

WILLIAMS, EMMA, Great York Street, Hanley, mineral-water manufacturer. January 7.

WILLIAMSON, ROBERT, 8 Holborn Mount, Hull, British guano, cattle and poultry meal manufacturer. January 10.

PARTNERSHIPS DISSOLVED.

ANSAR, HARFORD & CO., Strand, sole agents for Dr. de Jongh's light brown cod-liver oil. January 30. (Frederick Michael Harman and Peter Berlyn.) Debts by Hartman.

APPS, A., Strand, opticians and electricians. January 1. Alfred Apps and Alan Bagot.

BRITISH SOAP COMPANY, Dudley, soap manufacturers. January 11. (Joshua Horton and William Smith.) Debts by Smith.

CLARKE & M'MULLAN, Victoria Street, Belfast, druggists, drysalters, and general merchants. December 31. (John Clarke and Thomas M'Mullan.) Debts by John Lindsay and Robert Wensley.

CLARKE, A. W. & CO., Greenhill, Gunnislake, p.r. Calstock, lump arsenic manufacturers. January 7. (Meyer George Tobias and Arthur Walter Clarke.) Debts by Tobias.

CLUTTERBUCK & GRIFFIN, Christmas Street, Bristol, drysalters. December 31. (Jabez Clutterbuck, Joseph Griffin, jun., and John Hellier Griffin); as regards Griffin. Debts by remaining partners.

COXETER & SON, Grafton Street East, surgeons' instrument makers. May 31. (James Coxeter and Samuel Joseph Coxeter.) Debts by S. J. Coxeter.

CRUSE & CO., Palmerston Road, Southsea, dispensing chemists. January 1. (Thomas Harris Cruse and Thomas Watkins Parris.) Debts by Cruse.

DURHAM & CO., Tramway Yard, Dalston, manufacturers of carbons for electric lighting. (Frederick William Durham, Walter Barrett, Montague Robinson White, and Patrick Walter D'Alton); as regards Durham. October 30. Debts by remaining partners.

HARRISON & HORNE, Grosvenor Villas, Brixton Rise, Brixton, chemists. December 24. (Frederick Harrison and John Horne.) Debts by Horne.

HART, J., & SON, Aldersgate Street, sponge merchants. January 28. (Jacob Hart and Emmanuel Hart.)

HARVEY & PASHLEY, Kirkwhite Street, Nottingham, aerated-water manufacturers and bottlers of ale and stout. December 31. (Alfred Nutt Harvey and Thomas Pashley.) Debts by Harvey.

HORNER & SONS, Mitre Square, Aldgate, merchants and wholesale druggists. December 31. (Edward Horner, Edward Horner, jun., Francis Horner, and Leonard Horner); as regards Horner. Debts by remaining partners.

KNIGHT, JOHN, & SONS, Silvertown, soap manufacturers, &c. December 31. (William Knight, John Burgess Knight, Edwin Knight, Ambrose Knight, William Duncan Knight, Edwin Knight, jun., and John Baillie Knight); as regards E. Knight, jun. Debts by remaining partners.

LAING, JAMES, & CO., Bothwell Street, Glasgow, merchants and drysalters. December 31. (Colin Campbell, James Baird, and Duncan Campbell); as regards Baird. Debts by remaining partners.

LONGSHAW, WILLIAM & SONS, Sankey Bridges, near Warrington, chemical manufacturers. June 30. (William Longshaw, Peter Phillips Longshaw, and James Paterson, jun.); as regards J. Paterson, jun.

MARCHBANK & TELFER, West Regent Street, Glasgow, drysalters and commission agents. December 31. (William Marchbank and James Harper Telfer.) Debts by Telfer.

MAYS, R. J. & SON, Market Place, and Hudson Street, Tyne Dock, South Shields, chemists and merchants. January 10. (Robert James John Mays and Alfred Mays.) Debts at Market Place, by A. Mays, and at Hudson Street, by J. J. Mays.

SCOTTISH CENTRAL AERATED-WATER COMPANY, 231 Leith Walk, Edinburgh. January 18. (E. Coxson and Gilbert Rae.) Debts by Rae.

SMITH, ROBERT, & SON, High Onsegate, York, and Westborough, Scarborough, cutlers, opticians, and surgical-bandage manufacturers. December 31. Debts by F. Smith.

SPRENT & BIDDLES, Broad Street, Reading, chemists, druggists, and dentists. January 1. (Charles Sprent and William Byron Biddles.) Debts by Biddles.

UNSWORTH & BAKER, East Retford, aerated-water manufacturers, ale and porter merchants, and livery-stable keepers. January 1. (Samuel Baker and William Unsworth.) Debts by Unsworth.

WADSWORTH, T. F., & CO., Gorton, near Manchester, soap, grease, and chemical manufacturers. January 31. (Edward Michaelis and James Wrigley.)

WATSON BROTHERS, Coatbridge, N.B., aerated-water manufacturers and bottlers. December 27. (John Watson and Easton Watson.) Debts by E. Watson.

WILLSON BROTHERS, Alford, mineral-water manufacturers. December 22. (John Willson and Harry Willson.)

DIVIDENDS.

BUDD, THOMAS CLAYTON, and GEORGE BARTON SCHOLES, Pendleton, trading as "Thomas Budd & Co.," paint and varnish manufacturers. First and final div. of 7s. 6d. forthwith by trustee, F. Leach, at offices of F. Leach & Co., accountants, 42 Kennedy Street, Manchester.

HOLDER, HENRY, Hulme, manufacturer of aerated waters. First and final div. of 1s. 6d. on and after January 16, at offices of trustee, E. Williams, 19 and 20 Barton Arcade, Deansgate, Manchester.

MATTHEWS & HANDLEY, Widnes, trading as "T. D. Matthews & Co.," manufacturers of glazed chemical and sanitary pipes. First and final div. of 1s. 6d. on and after January 18, at the office of trustee, J. W. Lightfoot, 24 Bridge Street, Runcorn.

NICHOLSON, EDWARD, Lincoln, chemist and druggist. First and final div. of 10d., on any day, at office of trustee, G. Jay, 8 Bank Street, Lincoln.

TRAVIS, F., oil merchant and drayalter, trading as "Travis & Wilde." First 2s. on and after February 8, by trustee, W. Alexander, 24 North John Street, Liverpool.

ADJUDICATIONS (UNDER BANKRUPTCY ACT, 1833).

DUODALE, EDWIN, 220 Netherfield Road, North, Liverpool, trading as the Liverpool and North and South Wales Pinaceae Beer and Beverage Manufactory, panacea beer, beverage, and mineral-water manufacturer and dealer. February 4.

PHILLIPS, JOHN, 1, 153, and 154 Marine Parade, Brighton, chemist, druggist, and lodging house keeper. January 25.

ROEWELL, ROBERT, 13 Lombard Street, and Jesmond Gardens, Newcastle, trading at Heworth Shore, under firm of Robert Imery & Co., agent and coal-fitter and chemical manufacturers. February 5.

Trade Report.

COMMENCING with this year the Board of Trade have introduced a few modifications into their system of showing the monthly returns of imports and exports. The alterations include a little more detail in respect to drugs and chemicals. We give below all the information provided by these returns which can be classed under those headings.

The total imports during January, 1884, were valued at 35,645,221 $\text{l}.$, which nearly corresponded with those of the previous January, which were 35,736,846 $\text{l}.$. Articles of food and drink show a decrease of over 900,000 $\text{l}.$, while there is an increase of just half that amount in the imports of raw materials for textile manufacturers.

The total exports of British and Irish produce and manufactures amounted to 19,352,541 $\text{l}.$, which compares with 20,608,659 $\text{l}.$ in January, 1883. In the same month the exports of foreign and colonial produce were estimated at 3,510,071 $\text{l}.$ and 3,891,000 $\text{l}.$, showing a total decrease of 1,637,047 $\text{l}.$.

The following are the details referred to above:—

IMPORTS.

		Quantities			Values		
		January, 1882	January, 1883	January, 1884	January, 1882	January, 1883	January, 1884
Spices—							
Cinnamon ..	..	..	..	..	..	..	..
Ginger ..	..	..	..	..	..	..	..
Pepper ..	..	..	..	..	..	..	..
	lbs.	lbs.	lbs.	lbs.	£	£	£
Total	..	..	..	..	—	—	—
Quicksilver ..	..	..	..	..	570,575	27,150	346,270
Chemicals, dye-stuffs, and tanning substances—							
Alkali ..	..	..	..	..	3,576	3,143	2,175
Bark for tanners' or dyers' use ..	..	..	..	..	15,258	11,719	12,269
Brimstone ..	..	..	..	..	135,958	34,846	57,533
Chemical manufactures & products, unenumerated ..	..	..	..	..	—	—	—
Cochineal ..	..	..	..	..	2,138	1,991	1,400
Cutch and gambier ..	..	..	..	..	846	2,230	2,856
Dyes (coal-tar):							
Aniline ..	..	..	..	..	£	—	—
Alizarine ..	..	..	..	..	—	—	—
Other coal-tar dyes ..	..	..	..	..	—	—	—
Indigo ..	..	..	..	..	23,746	24,852	23,376
Madder, madder-root, garancine, and murexine ..	..	..	..	..	1,791	2,309	996
Nitre, cubic (nitrate of soda) ..	..	..	..	..	185,796	177,302	112,634
Saltpetre ..	..	..	..	..	18,428	56,394	27,530
Valonia ..	..	..	..	..	3,330	1,633	2,104
Total of principal articles ..	..	..	..	..	—	—	—
„ other articles ..	..	..	..	..	—	—	—
Total of chemicals, dye-stuffs, and tanning substances ..	..	..	..	..	—	—	—
Oils—							
Cocoanut ..	..	..	..	..	ewt.	9,221	3,197
Olive ..	..	..	..	..	tuns	1,949	2,544
Palm ..	..	..	..	..	ewt.	61,208	58,512
Petroleum ..	..	..	..	..	galls.	5,025,680	5,195,212
Seed of all kinds ..	..	..	..	..	tuns	1,249	943
Train, blubber, and sperm ..	..	..	..	..	„	1,071	862
Turpentine ..	..	..	..	..	ewt.	20,473	19,262
Total of principal articles ..	..	..	..	..	£	—	—
„ other articles ..	..	..	..	..	£	—	—
Total of oils ..	..	..	..	..	£	—	—
Bark, Peruvian ..	..	..	..	..	ewt.	17,718	10,857
Guin—							
Arabic ..	..	..	..	..	„	6,443	8,337
Lac, seed, shell, stick, and dye ..	..	..	..	..	„	9,714	10,771
Drugs, unenumerated ..	..	..	..	..	£	—	—

EXPORTS.

Chemicals and Chemical and Medicinal Preparations	Quantities			Values		
	January, 1882	January, 1883	January, 1884	January, 1882	January, 1883	January, 1884
Alkali—						
To Russia cwt.	9,606	1,309	6,837	£ 3,076	£ 531	£ 2,129
Germany	18,122	9,901	14,945	4,085	2,611	3,558
Holland	26,936	23,841	16,135	5,580	4,181	3,021
Belgium	24,327	16,100	10,882	6,101	4,267	3,348
France	15,721	18,669	8,931	6,588	8,724	4,349
Spain and Canaries	19,087	16,495	17,644	8,849	6,629	6,096
Italy	20,572	27,587	20,791	5,479	6,787	6,028
United States	266,933	341,924	305,629	86,709	97,878	103,360
Other countries	79,716	67,862	75,428	23,326	19,209	21,316
Total	481,020	523,688	477,222	149,793	150,817	153,005
Bleaching materials or preparations cwt.	123,200	124,800	120,334	26,180	26,490	50,128
Mannure (chemical)—						
To Germany £	—	—	—	77,469	88,208	80,742
France £	—	—	—	15,501	27,219	49,980
British West India Islands and Guiana £	—	—	—	18,122	26,299	16,497
Other countries £	—	—	—	53,400	49,333	65,873
Total £	—	—	—	164,492	191,059	213,092
Medicines, comprising drugs and medicinal preparations £	—	—	—	70,362	72,180	76,000
Other articles £	—	—	—	152,766	175,044	160,313
Total value of chemicals and chemical and medicinal preparations £	—	—	—	563,593	615,590	652,538

RE-EXPORTS OF FOREIGN PRODUCE.

	Quantities			Values		
	January, 1882	January, 1883	January, 1884	January, 1882	January, 1883	January, 1884
Bark, Peruvian cwt.	8,611	3,440	3,641	£ 98,653	£ 34,129	£ 22,030
Chemical manufactures and products, unenumerated £	—	—	—	5,299	14,228	22,285
Quicksilver lbs.	146,038	389,436	328,622	12,593	29,055	22,828

MINCING LANE, February 13.

THE period since the date of our last report has been an eventful one in many respects, although trade generally shows improvement. Doubtless there are many articles in which steady business is being done; but against this it must be admitted that there are many others which, although standing at prices seldom before reached, almost utterly fail to attract attention, and, in fact, in several instances the small amount of sales recorded would hardly appear sufficient to meet everyday requirements.

As the "staff of life" is an article which interests men of all trades, we may be pardoned if we digress a little, and just see how things are going on with our neighbours in Mark Lane. Here, in the finest corn market of the world, we find an unprecedented state of depression. Stocks are larger and prices lower than were ever before known, notwithstanding which sales are extremely difficult to make. Wheat continues to arrive in such quantities that at one of the London docks a new range of warehouses is on the point of completion, built expressly to store this commodity in, but at such fallen values that it is estimated, in order to cover the actual loss upon stocks lying here and floating cargoes, no less a sum than £1,000,000 sterling would be required—incredible as such an amount may appear.

The continued disasters in the Soudan successfully keep prices at very high prices, especially finest Arabic and Turkey sorts, although the business in them is now more of a hand-to-mouth than speculative character.

Quinine is in a very altered position, having had quite an eventful time of it of late, as fully described under its particular heading.

The Bank rate was somewhat unexpectedly advanced to 3 per cent. on the 7th instant.

ACIDS.—*Citric* is extremely quiet, and sales have recently been made in fair quantity at 1s. 6d. per lb., although even its price is now difficult to make for quantities. *Tartaric* is

in a better state, although foreign is obtainable at 1s. 6d., but for English make 1s. 7½d. per lb. is asked.

ALOES.—Cape are in better demand at higher prices. In last drug sales 97 cases sold out of 105 at prices ranging from 37s. to 49s. per cwt., according to quality.

ALUM meets with no improvement, and prices are fairly steady at 6d. per ton loose, 6d. 10s. for ground.

ANTIMONY.—Crude is steady at 22d. 10s. per ton, with moderate stocks. *Regulus* is very firm at 44d. to 46d. per ton, and at these prices manufacturers are not inclined to execute small orders.

BALSAMS.—*Peru* is without demand at 8s. 3d. per lb.; *Capiri* dearer at 2s. to 2s. 4d., and *Tolu* quiet at 2s. 2d. to 2s. 6d. per lb.

BARK does not appear to be much influenced by the changes which have occurred in prices of quinine. Yesterday's sales were smaller than usual, but cinchona qualities showed no material variation in prices, although the quantity sold was larger than usually passes the hammar, and fairly considerable private sales are reported.

BLEACHING POWDER.—10d. 10s. per ton continues to be asked, although sales recently effected have been of a moderate character.

BORAX, at the reduced rates of 40s. to 42s. per cwt., is commanding a steady sale.

CALUMBA ROOT.—No less than 366 bags were offered in last sales, of which only 51 bags dull quality sold at 15s. per cwt.

CAMOMILES.—Good last year's flowers are quoted 50s. to 55s. per cwt., and old from 15s. to 30s., according to quality. Of the latter sort some hundreds of bales bought during the "bitter" speculations are, we believe, still in stock in London.

CAMPHOR.—Raw, both Japan and China, remain very quiet though steady, at 60s. to 57s. 6d. per cwt. Refined English make, 11d.; foreign, 10½d. per lb.

CARDAMOMS remain steady. In last drug sales 63 packages out of 220 various sorts found buyers at about unchanged rates.

CASSIA LIGNEA is very low in price. Of 660 cases broken, offered in public sale, 160 cases sold without reserve at 26s. per cwt.

CHIRETTA.—Nothing doing.

CLOVES.—As might have been expected from the large arrivals reported in our last, prices have receded, and are now 4½d. for fair Zanzibar to 5d. per lb. for fine; 400 bales for forward delivery, April to June, have been sold at the lower figure.

COCHINEAL has met with more business of late, some 500 bags being reported sold for speculative account. Prices are, however, unchanged.

COD-LIVER OIL is slightly easier in tone at from 7s. to 14s. per gall., not from any increase of stocks, but presumably through the present extraordinarily mild weather having brought the demand of late far below an ordinary winter average.

CREAM OF TARTAR is steady, though in little demand, at 12s. per cwt. for "firsts."

CUBEBS well maintain their position, and are, in fact, firmer, 18s. per cwt. being readily obtainable for fair quality; and some very inferior ones were bought in at last drug sales a little under that price. Indications of a still further advance are not wanting.

ERGOT OF RYE continues steady, good Spanish still selling in small quantities at 1s. per lb.

ESSENCE OF LEMON continues to move off slowly at unchanged prices, although in last sales a very cheap lot sold without reserve, at the low figures of 2s. 9d. to 2s. 11d. per lb.

GENTIAN ROOT is offered more freely, although price may be called unchanged at 32s. 6d. per cwt.

GLYCERINE is a little firmer at 75s. per cwt. for best.

IODINE unchanged at 4½d. to 5d. per lb.

IPECACUANHA has been more freely sold at slightly easier prices, and in last sales, out of 72 serons 26 found buyers at 2s. 9d. to 3s. 3d. per lb.

ISINGLASS sales were held on the 22nd ult., when the total supply of East India offered amounted to the moderate quantity of 323 packages, and comprised 191 Bombay, 86 Saigon, and only 46 Penang. About 130 packages found buyers at barely late rates for Saigon leaf, but about 1d. dearer for Penang. Extreme prices were paid for good and fine Bombay purse, although 1d. to 2d. per lb. less had to be accepted for ordinary and inferior sorts. Old tongue steady, pipe rather cheaper all round. Kurrachee leaf neglected. Penang purse very steady. Bladder dearer. Penang tongue very scarce; good pale would be worth 3s. 8d. to 3s. 10d. per lb. Next sales are fixed for 26th inst.

LEMON JUICE is lower at 18s. 10s. per pipe f.o.b. Messina, prompt shipment.

MORPHIA. Although some makers still ask 6s. 3d., we believe 6s. would be accepted for a quantity.

OPIUM remains in a quieter position, but prices may be called unchanged at 12s. to 20s. per lb., according to quality.

OILS.—Aniseed, 7s. 3d. to 7s. 4d. per lb. Cassia higher: prices of 4s. to 4s. 3d. asked. American peppermint oils: H. G. Hotchkiss has ruled at 12s. 6d. to 12s. 9d. per lb. until this week; now 13s. 6d. is asked, and 13s. 3d. has been paid. Hale & Parshall, steady at 12s. 3d. MENTHOL CRYSTALS are lower, and now obtainable at 22s. 6d. per lb.

OTTO OF ROSES.—Although in some instances buyers appear to be holding off, hoping by so doing to fulfil their requirements at slightly easier prices later on, recent advices from Constantinople do not appear to warrant such an expectation. Stocks previous to the last crop were almost entirely cleared out, and of last year's distillation we hear

all the good qualities are becoming steadily reduced. Ihmsen's price is unchanged at 35s. per Turkish oz. f.o.b. Constantinople, and on the spot a very fair business is being done in the cheaper qualities.

PIMENTO.—The large quantity of 2,326 bags offered in last spice sales met but small demand, only 700 bags finding buyers, at 2½d. to 2½d. per lb.

POTASH.—There has been an improved demand for chlorate and 6½d. per lb. is now the price for prompt delivery Prussiate, 10d. to 10½d. per lb., with fair business. Bickramate.—Quiet, at 4½d. per lb.

QUASSIA WOOD.—Unchanged.

QUICKSILVER.—Importers' price is reduced to 51. 2s. 6d. per bottle, without, however, influencing business. This is the lowest price on record, and possibly a few second-hand parcels might be met with at a slight reduction upon it.

QUININE has undergone a transformation-scene. 10,000 oz Zimmer's make were advertised for public sale by Messrs Lewis & Peat in the middle of January, the sale to take place upon the 24th of that month. Prices of the various makes were at the time of the announcement those of the "combination," and the same as quoted last by us. Whether this incident had anything to do with what followed it is not for us to state. Suffice it to say that before the arrival of the day of sale—i.e., on January 21—Messrs. Howards & Sons reduced their price no less than 1s. 6d. per oz.—namely from 8s. to 6s. 6d. for 1-oz. bottles. The effect upon the sale was obvious, the 10,000 oz. selling at 5s. 3d. to 5s. per oz. Prices of all the other makes receded accordingly, and last Monday Howards' price was further reduced to 6s. 3d. per oz. German, Italian, and French makes are quoted 5s. per oz. in tins. It is reported from New York that the cable announcement of the reduction in prices of quinine here caused a great sensation upon their markets, and a rush to realise was made by holders of foreign makes, stocks of which are stated to have amounted at the time to no less than 125,000 oz. During the last few days a fairly extensive business has been done. As regards the "combination," our friends who have done us the favour to read our monthly reports will know that at first we were loth to believe in its creation, and later on far more loth to credit its success. There are those who tell us now that the "combination" is not broken up; that this is only a temporary privilege all round, for each make to sell as much as possible at whatever prices seem to them individually best—a sort of "interregnum," in fact. To such as hold these views we would respectfully remark they appear to us so thoroughly inconsistent with common sense that in their case we would prefer to consider that the wish with them is father to the thought.

SAFFRON is very steady and in fair demand, at prices ranging from 33s. 6d. to 41s. 6d. per lb. for Valencia qualities 23s. to 28s. for Alicante. A remarkable feature about Valencia saffron is the large quantity which now passes first through the Continent before coming upon the London market. This refers particularly to the cheaper sorts, which whilst making their Continental détour, are there mixed with the smaller parts called "cuttings." These "cuttings" are procured in the process of trimming the saffron for the Austrian markets, where the article is preferred so prepared, and proportionately higher prices are paid for it. Such qualities, however, although pure, lack the vigour and bloom of direct imports, and are naturally deprived of much strength, a comparative solution tests with saffron shipped direct from Spain readily show. Moreover, all expense for additional transit, labour, mixing, &c., must be paid for by someone, and we fear it is the consumer here who has to do it. The best guarantee that saffron has not been manipulated is when the three stigmas are found united at the base, as by nature formed in the flower from which it is taken.

SALTPETRE.—British refined is quiet, at 23s. to 24s. per cwt.

SODA.—Crystals, at 3s. 11s. 6d. per ton ex ship, meet with very little business. Bicarbonates in fair demand, at 7s. 15s. to 8s. per ton. Caustic is very quiet, at 10s. 10s. per ton for cream, and 10s. 15s. for white, 60 to 62 per cent.

SULPHATE OF COPPER meets with rather more inquiry, a 22s. 10s. per ton.

Monthly Price Current.

The prices quoted in the following list are those actually obtained in Miuncing Lane for articles sold in bulk. Our Retail Subscribers must not expect to purchase at these market prices, but they may draw from them useful conclusions respecting the prices at which articles are offered by the Wholesale Firms.

CHEMICALS.

ACIDS—

		Last Month	This Month		
		s. d.	s. d.	s. d.	s. d.
Acetic	per lb.	0 2½ to 0 2½	0 2½ to 0 2½		
pure	"	0 5.. 0 9	0 5.. 0 9		
glacial	"	0 8.. 1 1	0 8.. 1 1		
Benzoic Sublimate	"	0 0.. 3 6	0 0.. 3 6		
Ex Gum.	per oz.	0 0.. 0 6½	0 0.. 0 6½		
Citric	"	1 6½.. 0 0	1 6.. 1 6½		
Gallic	"	3 2.. 3 6	3 2.. 3 6		
Hydrochloric	per cwt.	4 6.. 7 6	4 6.. 7 6		
Nitric	per lb.	0 3.. 0 3½	0 3.. 0 3½		
Oxalic	"	0 6.. 0 0	0 6.. 0 0		
Sulphuric	"	0 0½.. 0 1	0 0½.. 0 1		
Salicylic	"	6 9.. 9 6	6 9.. 9 6		
Tannic	"	1 4.. 2 9	1 4.. 2 9		
Tartaric, English	"	1 7.. 0 0	1 7.. 0 0		
foreign	"	1 6.. 0 0	1 6.. 0 0		
ANTIMONY, crude	per cwt.	22 6.. 23 0	22 6.. 0 0		
star	"	43 0.. 46 0	44 0.. 46 0		
ARSENIC, lump	"	24 6.. 0 0	24 6.. 0 0		
powder	"	10 6.. 11 0	10 6.. 11 0		
BRIMSTONE, rough	"	8 0.. 8 6	8 0.. 8 6		
roll.	"	8 9.. 10 0	8 9.. 10 0		
flour	"	10 0.. 12 6	10 0.. 12 6		
GLYCERINE, German					
refined	"	75 0.. 0 0	75 0.. 0 0		
crude brown	"	40 0.. 45 0	40 0.. 45 0		
IODOFORM	per lb.	8 0.. 8 2	8 0.. 8 2		
IODINE, dry	per oz.	0 4.. 0 0	0 4.. 0 0		
resublimed	"	0 6.. 0 0	0 6.. 0 0		
MAGNESIA, calcined	per lb.	0 10.. 1 4	0 10.. 1 4		
Hwd's.	"	5 0.. 0 0	5 0.. 0 0		
MERCURY	per bot.	104 0.. 105 0	102 6.. 0 0		
Precipitate, red	per lb.	2 11.. 2 11½	2 11.. 2 11½		
white	"	2 10.. 0 0	2 10.. 0 0		
PRUSSIAN BLUE	"	1 8.. 2 0	1 8.. 2 0		
SANTONINE	"	11 6.. 0 0	11 6.. 0 0		
SALCINE	"	10 0.. 0 0	10 0.. 0 0		
THYMOL	"	21 6.. 0 0	21 6.. 0 0		
SALTS—					
Alum	per ton	120 0.. 0 0	120 0.. 0 0		
powder	"	130 0.. 0 0	130 0.. 0 0		
Ammonia:					
Carbonate	per lb.	0 6½.. 0 0	0 6½.. 0 0		
Hydrochloric, white	per ton	600 0.. 760 0	600 0.. 760 0		
Sulphate	"	340 0.. 360 0	340 0.. 360 0		
Argol, Cape	per cwt.	83 0.. 96 0	83 0.. 96 0		
Red	"	70 0.. 90 0	70 0.. 90 0		
Oporto, red	"	38 0.. 42 0	38 0.. 42 0		
Bleaching powder	"	10 6.. 11 0	10 6.. 11 0		
Borax, British refined	"	40 0.. 42 0	40 0.. 42 0		
Calomel	per lb.	2 6.. 0 0	2 6.. 0 0		
Chloral hydrate	"	4 5.. 4 7	4 5.. 4 7		
Liebreich's	"	5 6.. 6 0	5 6.. 6 0		
Copper:					
Sulphate	per cwt.	23 6.. 0 0	22 6.. 0 0		
Copperas, green	per ton	55 0.. 0 0	55 0.. 0 0		
Corrosive Sublimate	per lb.	1 11.. 0 0	1 11.. 0 0		
Cream Tartar, French	per cwt.	130 0.. 0 0	128 0.. 0 0		
brown	"	112 0.. 0 0	112 0.. 0 0		
Epsom Salts	"	4 0.. 6 0	4 0.. 6 0		
Glauber Salts	"	4 0.. 5 0	4 0.. 5 0		
Magnesia:	Carbonate	"	40 0.. 0 0	40 0.. 0 0	
Pond, Hwd's.	"	72 0.. 0 0	72 0.. 0 0		
Morphine Murias	"	6 0.. 6 3	6 0.. 6 3		
Phosphorus	per lb.	2 3.. 2 4	2 3.. 2 4		
Potash:					
Bichromate	"	0 5.. 0 0	0 5.. 0 0		
Carbonate:					
Potashes, Canada, 1st sort	per cwt.	29 0.. 0 0	29 0.. 0 0		
Pearlashes, Canada, 1st sort	"	46 0.. 46 6	46 0.. 46 6		
Chlorate	per lb.	0 6.. 0 0	0 6.. 0 0		
Prussiate, red	"	0 9½.. 0 10½	0 9½.. 0 10½		
Sulphate	per cwt.	11 11.. 2 0	11 11.. 2 0		
Potassium:					
Bromide	per lb.	1 4.. 0 0	1 4.. 0 0		
Chloride	per cwt.	9 0.. 0 0	9 0.. 0 0		
Iodide	per lb.	4 9.. 5 0	4 9.. 5 0		
Quinine:					
Sulphate, British, in bottles	per oz.	8 0.. 0 0	6 3.. 0 0		
Sulphate, French	"	7 8.. 0 0	5 3.. 0 0		
Sulphate, German	"	7 0.. 7 6	4 9.. 5 0		
Sal Acetos	per lb.	0 8½.. 0 0	0 8½.. 0 0		
Sal Ammoniac, British	per cwt.	44 0.. 0 0	44 0.. 0 0		
Saltpetre:					
Bengal, 6 per cent, or under	"	18 9.. 19 0	18 9.. 19 0		

Saltpetre:—(cont.)

		Last Month	This Month	
		s. d.	s. d.	s. d.
Bengal, over 6 per cent.	per cwt.	18 0 to 18 6	18 0 to 18 6	
British, refined	"	24 0.. 25 0	23 0.. 24 0	
Soda: Bicarbonate	"	7 9.. 0 0	7 9.. 0 0	
Hwd's.	"	45 0.. 0 0	45 0.. 0 0	
Carbonate:				
Soda Ash	per deg.	0 1½.. 0 1½	0 1½.. 0 1½	
Soda Crystals	per cwt.	3 4½.. 0 0	3 7½.. 0 0	
Caustic	"	8 9.. 9 3	10 6.. 10 9	
Hyposulphite	"	8 0.. 8 6	7 9.. 8 0	
Nitrate	"	11 3.. 0 0	11 3.. 0 0	
Zinc Sulphate	"	12 0.. 14 0	12 0.. 14 0	
SUGAR OF LEAD, White	"	30 0.. 34 0	30 0.. 34 0	
Brown	"	26 6.. 0 0	26 6.. 0 0	
VERDIGRIS	per lb.	0 8.. 1 0	0 9½.. 1 0	
VERMILION, English	"	2 3.. 0 0	2 3.. 0 0	
China	"	2 4.. 0 0	2 4.. 0 0	
DRUGS.				
ALOES, Hepatic	per cwt.	70 0.. 130 0	70 0.. 130 0	
Socotrine	"	60 0.. 190 0	60 0.. 190 0	
Cape, good	"	45 6.. 46 6	45 0.. 49 0	
Inferior	"	36 0.. 45 0	37 0.. 44 0	
Barbados	"	60 0.. 150 0	60 0.. 150 0	
Chuao	"	50 0.. 100 0	50 0.. 100 0	
AMBERTHIS, grey	per oz.	60 0.. 80 0	60 0.. 80 0	
BALSAM—				
Canada	per lb.	2 2.. 0 0	2 2.. 0 0	
Capivi	"	2 4.. 2 5	2 0.. 2 4	
Pern	"	8 6.. 9 0	8 3.. 0 0	
Tohn	"	2 4.. 0 0	2 2.. 2 6	
BARKS—				
Cancilla alba	per cwt.	25 0.. 27 6	25 0.. 27 6	
Cascara	"	30 0.. 37 6	30 0.. 37 6	
CINCHONA—				
Pern, grey	per lb.	0 9.. 1 8	0 9.. 1 8	
Calisuya, flat	"	1 3.. 2 0	1 3.. 2 0	
quill	"	4 0.. 7 0	4 0.. 7 0	
Carthazena	"	0 6.. 2 8	0 6.. 2 8	
Columbian	"	0 8.. 4 0	0 8.. 4 0	
Cuprea	"	0 6.. 1 10	0 6.. 1 10	
New Granada	"	1 0.. 4 0	1 0.. 4 0	
Pitayo & Maracaibo	"	0 6.. 1 10	0 6.. 1 10	
Red	"	2 0.. 9 0	2 0.. 9 0	
East India, crown	"	0 9.. 2 6	0 9.. 2 6	
red	"	0 6.. 3 0	0 6.. 3 0	
BUCHU LEAVES.				
CAMPHOR, China	per cwt.	55 0.. 59 0	55 0.. 57 6	
Japan	"	60 0.. 0 0	58 0.. 60 0	
Refin. Eng.	per lb.	1 0.. 0 11½	0 11.. 0 0	
Tablets	"	1 0.. 0 0	1 0.. 0 0	
CANTHARIDES, China	"	2 6.. 3 0	2 6.. 3 0	
Russian	"	3 9.. 4 0	6 0.. 10 0	
CAMOMILE FLOWERS	per cwt.	25 0.. 50 0	25 0.. 50 0	
CASTOREUM	per lb.	22 0.. 32 0	22 0.. 32 0	
CHIRITA	"	0 3.. 0 4	0 3.. 0 4	
DRAGON'S BLOOD, lp.	per cwt.	70 0.. 240 0	70 0.. 240 0	
EIGOT OF RYE.	per lb.	0 7½.. 0 10	0 9.. 1 0	
FRUITS & SEEDS (see also Seeds and Spices)				
Anise, China Star.	per cwt.	95 0.. 100 0	95 0.. 100 0	
Russian	"	20 0.. 30 0	20 0.. 30 0	
Beans, Tonquin	per lb.	3 0.. 5 0	3 0.. 5 0	
Cardamoms, Malabar, good	per cwt.	6 0.. 10 0	6 0.. 10 0	
inferior	"	4 0.. 5 0	4 0.. 5 0	
Aleppy	"	4 0.. 5 0	4 0.. 5 0	
Madras	"	2 0.. 4 0	2 0.. 4 0	
Ceylon	"	2 0.. 2 10	2 0.. 2 10	
Malabar sorts	"	4 0.. 7 0	4 0.. 7 0	
Cocculus Indicus	per cwt.	11 0.. 13 0	11 0.. 13 0	
Coccyth, apple	per lb.	0 10.. 1 3	0 10.. 1 3	
Cubeb	per cwt.	300 0.. 360 0	300 0.. 360 0	
Cumin	"	30 0.. 34 0	30 0.. 34 0	
Fenugreek	"	10 0.. 12 0	10 0.. 12 0	
Juniper Berries	"	8 6.. 11 0	8 6.. 11 0	
Nux Vomica	"	9 0.. 12 0	9 0.. 12 0	
Tamarinds, E. India	"	8 0.. 12 0	8 0.. 12 0	
W. India	"	15 0.. 17 6	15 0.. 17 6	
Vanilla, large	per lb.	20 0.. 25 0	20 0.. 25 0	
inferior	"	8 0.. 18 0	8 0.. 18 0	
FLOWERS—Dalmatian	"	60 0.. 90 0	60 0.. 90 0	
Caucasian	"	95 0.. 0 0	95 0.. 0 0	
HONEY, Chili	per cwt.	39 0.. 52 0	39 0.. 52 0	
Jamaica	"	30 0.. 40 0	30 0.. 40 0	
IPECAQUANA	per lb.	2 9.. 4 6	2 9.. 4 6	
ISINGLASS, Brazil	"	2 0.. 4 3	2 0.. 4 3	
Tongue sort.	"	1 9.. 5 0	1 9.. 5 0	
East India	"	0 6.. 5 0	0 6.. 5 0	
West India	"	2 6.. 4 5	2 6.. 4 5	
Russ. leaf	"	7 0.. 10 3	7 0.. 10 3	
Simonia	"	2 2.. 2 4	2 2.. 2 4	
JALAP, good	"	0 8.. 0 10	0 8.. 0 10	
infer, and stems	"	0 7.. 0 8	0 7.. 0 8	
LEMON JUICE	per deg.	0 0.. 0 0	0 0.. 0 0	
LIME JUICE	per gall.	1 6.. 0 0	1 6.. 0 0	
LIQUORICE, Spanish	per cwt.	55 0.. 100 0	55 0.. 100 0	
Liquorice Root	"	12 0.. 20 0	12 0.. 20 0	
MANNA, flesky	per lb.	4 6.. 5 0	4 6.. 5 0	
MUSK, Tonquin pod.	per oz.	65 0.. 80 0	65 0.. 80 0	
Grain	"	35 0.. 60 0	35 0.. 60 0	
Yunnan pod.	"	40 0.. 50 0	40 0.. 50 0	
OILS (see also separate list)				
Almond, expressed	per lb.	1 3.. 1 5	1 3.. 1 5	
Castor, 1st pale	"	0 4½.. 0 0	0 4½.. 0 0	
second	"	0 3½.. 0 0	0 3½.. 0 0	
Cod-liver	per gall.	6 0.. 16 0	7 0.. 14 0	

Essential Oils :—		Last Month		This Month		Oils :—(cont.)		Last Month		This Month	
		per lb.	30 0 to 0 0	30 0 to 0 0	30 0 to 0 0	SEAL, yellow to tinged..	per tun	£ s.	£ s.	£ s.	£ s.
Almond	7 7 .. 7 8	7 7 .. 7 8	7 3 .. 7 4	7 3 .. 7 4	7 3 .. 7 4	BROWN	33 0 to 34 0	34 0 to 35 0	33 0 .. 31 0	30 0 .. 30 0	31 0 .. 31 0
Anise-seed, star	8 0 .. 13 0	8 0 .. 13 0	8 0 .. 13 0	8 0 .. 13 0	8 0 .. 13 0	SPERM	70 0 .. 72 0	65 0 .. 0 0	30 0 .. 31 0	30 0 .. 0 0	0 0 .. 0 0
German, &c.	6 9 .. 8 0	6 9 .. 8 0	6 9 .. 8 0	6 9 .. 8 0	6 9 .. 8 0	COD	36 0 .. 0 0	30 0 .. 0 0	30 0 .. 0 0	30 0 .. 0 0	0 0 .. 0 0
Bergamot	3 3 .. 0 0	3 3 .. 0 0	3 3 .. 0 0	3 3 .. 0 0	3 3 .. 0 0	WHALE, South Sea, pale	34 0 .. 0 0	30 0 .. 0 0	30 0 .. 0 0	34 0 .. 0 0	0 0 .. 0 0
Cajeput	5 6 .. 0 0	5 6 .. 0 0	5 6 .. 0 0	5 6 .. 0 0	5 6 .. 0 0	yellow	30 0 .. 0 0	30 0 .. 0 0	30 0 .. 0 0	30 0 .. 0 0	0 0 .. 0 0
Caraway	4 0 .. 4 4	4 0 .. 4 4	4 0 .. 4 4	4 0 .. 4 4	4 0 .. 4 4	brown	24 0 .. 30 0	23 0 .. 28 0	23 0 .. 27 0	25 0 .. 27 0	25 0 .. 27 0
Cassia	1 9 .. 2 6	1 9 .. 2 6	1 9 .. 2 6	1 9 .. 2 6	1 9 .. 2 6	SARDINE	25 0 .. 0 0	25 0 .. 0 0	25 0 .. 0 0	27 0 .. 0 0	27 0 .. 0 0
Cinnamon	0 2 2 .. 0 0	0 2 2 .. 0 0	0 2 2 .. 0 0	0 2 2 .. 0 0	0 2 2 .. 0 0	OLIVE, Seville	38 10 .. 39 0	0 0 .. 0 0	0 0 .. 0 0	0 0 .. 0 0	0 0 .. 0 0
Cinnamon-leaf	0 1 4 .. 0 0	0 1 4 .. 0 0	0 1 4 .. 0 0	0 1 4 .. 0 0	0 1 4 .. 0 0	GIOJA	36 0 .. 0 0	37 0 .. 0 0	36 0 .. 0 0	37 0 .. 0 0	37 0 .. 0 0
Citronelle	3 9 .. 4 0	3 9 .. 4 0	3 6 .. 3 9	3 6 .. 3 9	3 6 .. 3 9	LEVANT	36 0 .. 0 0	41 0 .. 0 0	41 0 .. 0 0	41 0 .. 0 0	41 0 .. 0 0
Clove	1 6 .. 2 0	1 6 .. 2 0	1 6 .. 2 0	1 6 .. 2 0	1 6 .. 2 0	MOGADOR	35 10 .. 36 0	35 10 .. 36 0	35 10 .. 36 0	36 0 .. 0 0	36 0 .. 0 0
Juniper	6 9 .. 8 6	6 9 .. 8 6	6 9 .. 8 6	6 9 .. 8 6	6 9 .. 8 6	SPANISH	35 0 .. 0 0	42 10 .. 0 0	42 10 .. 0 0	42 10 .. 0 0	42 10 .. 0 0
Lavender, Exotic	130 0 .. 0 0	130 0 .. 0 0	130 0 .. 0 0	130 0 .. 0 0	130 0 .. 0 0	SICILY	37 0 .. 0 0	42 0 .. 0 0	42 0 .. 0 0	42 0 .. 0 0	42 0 .. 0 0
Mitcham	5 0 .. 7 0	5 0 .. 7 0	5 0 .. 7 0	5 0 .. 7 0	5 0 .. 7 0	COCOANUT, Cochin	38 10 .. 0 0	34 10 .. 0 0	34 10 .. 0 0	36 0 .. 0 0	36 0 .. 0 0
Lemon	0 1 5 .. 0 0	0 1 5 .. 0 0	0 1 5 .. 0 0	0 1 5 .. 0 0	0 1 5 .. 0 0	CEYLON	34 0 .. 0 0	33 15 .. 0 0	33 15 .. 0 0	0 0 .. 0 0	0 0 .. 0 0
Lemongrass	7 0 .. 0 0	7 0 .. 0 0	7 0 .. 0 0	7 0 .. 0 0	7 0 .. 0 0	Mauritius	35 0 .. 0 0	0 0 .. 0 0	0 0 .. 0 0	0 0 .. 0 0	0 0 .. 0 0
Neroli	0 9 .. 0 11	0 9 .. 0 11	0 9 .. 0 11	0 9 .. 0 11	0 9 .. 0 11	PALM, fine	39 0 .. 0 0	41 10 .. 0 0	41 10 .. 0 0	42 0 .. 0 0	42 0 .. 0 0
Nutmeg	12 0 .. 0 0	12 0 .. 0 0	12 0 .. 0 0	12 0 .. 0 0	12 0 .. 0 0	LINSEED	20 10 .. 0 0	20 15 .. 0 0	19 10 .. 0 0	20 0 .. 0 0	20 0 .. 0 0
Orange	18 0 .. 38 0	18 0 .. 38 0	18 0 .. 38 0	18 0 .. 38 0	18 0 .. 38 0	RAPESEED, English, pale	35 10 .. 0 0	32 0 .. 0 0	32 0 .. 0 0	33 0 .. 0 0	33 0 .. 0 0
Otto of Roses	1 4 .. 2 0	1 4 .. 2 0	1 4 .. 2 0	1 4 .. 2 0	1 4 .. 2 0	brown	35 0 .. 0 0	30 0 .. 0 0	30 0 .. 0 0	31 0 .. 0 0	31 0 .. 0 0
Patchouli	130 0 .. 0 0	130 0 .. 0 0	130 0 .. 0 0	130 0 .. 0 0	130 0 .. 0 0	COTTONSEED	30 0 .. 0 0	26 0 .. 0 0	26 0 .. 0 0	27 0 .. 0 0	27 0 .. 0 0
Peppermint :—						LARD	63 0 .. 0 0	50 0 .. 0 0	50 0 .. 0 0	50 0 .. 0 0	50 0 .. 0 0
American	12 0 .. 0 0	12 0 .. 0 0	13 6 .. 0 0	13 6 .. 0 0	13 6 .. 0 0	TALLOW	25 0 .. 0 0	47 0 .. 0 0	47 0 .. 0 0	47 0 .. 0 0	47 0 .. 0 0
(H. G. Hotchkiss)	12 6 .. 0 0	12 6 .. 0 0	13 6 .. 0 0	13 6 .. 0 0	13 6 .. 0 0	TURPENTINE, American	30 0 .. 0 0	31 0 .. 0 0	30 0 .. 0 0	31 0 .. 0 0	31 0 .. 0 0
English	25 0 .. 0 0	28 0 0	25 0 .. 0 0	28 0 0	25 0 .. 0 0	PETROLEUM, refined	0 6 1 .. 0 0	0 6 1 .. 0 0	0 6 1 .. 0 0	0 7 1 .. 0 0	0 7 1 .. 0 0
German	8 0 .. 14 0	8 0 .. 14 0	8 0 .. 14 0	8 0 .. 14 0	8 0 .. 14 0	SEEDS.					
Japan	7 0 .. 9 0	7 0 .. 9 0	7 0 .. 9 0	7 0 .. 9 0	7 0 .. 9 0	CANARY	60 0 .. 0 0	75 0 .. 0 0	50 0 .. 0 0	62 0 .. 0 0	62 0 .. 0 0
Menthol crystals	30 0 .. 32 6	22 6 .. 0 0	22 6 .. 0 0	22 6 .. 0 0	22 6 .. 0 0	CARAWAY, English	0 0 .. 0 0	25 0 .. 0 0	20 0 .. 0 0	25 0 .. 0 0	25 0 .. 0 0
Rosemary	2 6 .. 3 9	2 6 .. 3 9	2 6 .. 3 9	2 6 .. 3 9	2 6 .. 3 9	GERMAN, &c.	20 0 .. 0 0	25 0 .. 0 0	20 0 .. 0 0	25 0 .. 0 0	25 0 .. 0 0
Sassafras	2 6 .. 0 0	0 0 .. 0 0	2 6 .. 0 0	0 0 .. 0 0	2 6 .. 0 0	CORIANDER	10 0 .. 0 0	21 0 .. 0 0	9 0 .. 0 0	16 0 .. 0 0	16 0 .. 0 0
Spearmint	12 0 0 .. 14 0	12 0 0 .. 14 0	12 0 0 .. 14 0	12 0 0 .. 14 0	12 0 0 .. 14 0	HEMP	38 0 .. 0 0	0 0 .. 0 0	38 0 .. 0 0	0 0 .. 0 0	0 0 .. 0 0
Thyme	2 6 .. 0 0	0 0 .. 0 0	2 6 .. 0 0	0 0 .. 0 0	2 6 .. 0 0	LINSEED, English	0 0 .. 0 0	0 0 .. 0 0	0 0 .. 0 0	0 0 .. 0 0	0 0 .. 0 0
Mace, expressed	0 2 2 .. 0 0	0 0 .. 0 0	0 2 2 .. 0 0	0 0 .. 0 0	0 2 2 .. 0 0	Black Sea & Azof	40 0 .. 0 0	0 0 .. 0 0	40 0 .. 0 0	0 0 .. 0 0	0 0 .. 0 0
OPPIUM, Turkey	17 0 .. 20 0	17 0 .. 20 0	17 0 .. 20 0	17 0 .. 20 0	17 0 .. 20 0	Calcutta	40 6 .. 0 0	0 0 .. 0 0	40 6 .. 0 0	0 0 .. 0 0	0 0 .. 0 0
inferior	12 0 .. 15 0	12 0 .. 15 0	12 0 .. 15 0	12 0 .. 15 0	12 0 .. 15 0	Bombay	40 6 .. 0 0	0 0 .. 0 0	40 6 .. 0 0	0 0 .. 0 0	0 0 .. 0 0
QUASSIA (bitter wood)	30 0 .. 35 0	30 0 .. 35 0	30 0 .. 35 0	30 0 .. 35 0	30 0 .. 35 0	St. Petersburg	35 0 .. 0 0	38 0 .. 0 0	35 0 .. 0 0	38 0 .. 0 0	38 0 .. 0 0
RHUBARB, China, good and fine	2 9 .. 4 4	2 9 .. 4 4	2 9 .. 4 4	2 9 .. 4 4	2 9 .. 4 4	MUSTARD, brown	10 0 .. 0 0	15 0 .. 0 0	10 0 .. 0 0	15 0 .. 0 0	15 0 .. 0 0
Middling to fair	1 0 .. 2 6	1 0 .. 2 6	1 0 .. 2 6	1 0 .. 2 6	1 0 .. 2 6	white	8 0 .. 0 0	14 0 .. 0 0	6 0 .. 0 0	10 0 .. 0 0	10 0 .. 0 0
ROOTS—Calumba	16 0 .. 30 0	16 0 .. 30 0	16 0 .. 30 0	16 0 .. 30 0	16 0 .. 30 0	POPpy, East India	43 0 .. 0 0	0 0 .. 0 0	43 0 .. 0 0	0 0 .. 0 0	0 0 .. 0 0
China	20 0 .. 0 0	20 0 .. 0 0	20 0 .. 0 0	20 0 .. 0 0	20 0 .. 0 0						
Cus-Cus	30 0 .. 21 0	30 0 .. 21 0	30 0 .. 21 0	30 0 .. 21 0	30 0 .. 21 0						
Galangal	26 0 .. 28 0	26 0 .. 28 0	26 0 .. 28 0	26 0 .. 28 0	26 0 .. 28 0						
Gentian	30 0 .. 0 0	30 0 .. 0 0	32 6 .. 0 0	32 6 .. 0 0	32 6 .. 0 0						
Orris	23 0 .. 50 0	23 0 .. 50 0	23 0 .. 50 0	23 0 .. 50 0	23 0 .. 50 0						
Pellitory	68 0 .. 80 0	68 0 .. 80 0	68 0 .. 80 0	68 0 .. 80 0	68 0 .. 80 0						
Pink	1 6 .. 0 0	1 6 .. 0 0	1 6 .. 0 0	1 6 .. 0 0	1 6 .. 0 0						
Rhatany	0 5 .. 0 6	0 5 .. 0 6	0 5 .. 0 6	0 5 .. 0 6	0 5 .. 0 6						
Seneka	2 4 .. 2 6	2 4 .. 2 6	2 4 .. 2 6	2 4 .. 2 6	2 4 .. 2 6						
Snake	1 6 .. 0 0	1 6 .. 0 0	1 6 .. 0 0	1 6 .. 0 0	1 6 .. 0 0						
SAFFRON, Valencia	39 0 .. 42 6	39 0 .. 42 6	39 0 .. 41 6	39 0 .. 41 6	39 0 .. 41 6						
Alicante	25 0 .. 30 0	23 0 .. 28 0	23 0 .. 28 0	23 0 .. 28 0	23 0 .. 28 0						
SARASAPARILLA, Lima	0 6 .. 1 0	0 6 .. 1 0	0 6 .. 1 0	0 6 .. 1 0	0 6 .. 1 0						
Guayaquil	1 2 .. 1 5	1 2 .. 1 5	1 2 .. 1 5	1 2 .. 1 5	1 2 .. 1 5						
Honduras	1 3 .. 2 0	1 3 .. 2 0	1 3 .. 2 0	1 3 .. 2 0	1 3 .. 2 0						
Jamaica	1 3 .. 2 0	1 3 .. 2 0	1 3 .. 2 0	1 3 .. 2 0	1 3 .. 2 0						
SASSAFRAS	0 0 .. 0 0	0 0 .. 0 0	0 0 .. 0 0	0 0 .. 0 0	0 0 .. 0 0						
SCAMMONY, Virgin second and ordinary	32 0 .. 35 0	32 0 .. 35 0	32 0 .. 35 0	32 0 .. 35 0	32 0 .. 35 0						
SENASA, Bombay	15 0 .. 28 0	15 0 .. 28 0	15 0 .. 28 0	15 0 .. 28 0	15 0 .. 28 0						
Tinnevelly	0 2 1 .. 0 0	0 2 1 .. 0 0	0 2 1 .. 0 0	0 2 1 .. 0 0	0 2 1 .. 0 0						
Alexandria	0 9 .. 1 6	0 9 .. 1 6	0 9 .. 1 6	0 9 .. 1 6	0 9 .. 1 6						
SPERMACETI, refined American	1 3 .. 0 0	0 0 .. 0 0	1 3 .. 0 0	0 0 .. 0 0	1 3 .. 0 0						
American	0 10 1 .. 0 0	0 10 1 .. 0 0	0 10 1 .. 0 0	0 10 1 .. 0 0	0 10 1 .. 0 0						
SOULS	0 1 .. 0 2 1 2	0 1 .. 0 2 1 2	0 1 .. 0 2 1 2	0 1 .. 0 2 1 2	0 1 .. 0 2 1 2						
GUMS.	£ s. £ s.	£ s. £ s.	£ s. £ s.	£ s. £ s.	£ s. £ s.						
AMMONIACI, drop	2 10 .. 20 0	3 6 .. 2 10 0	2 10 .. 20 0	3 6 .. 2 10 0	2 10 .. 20 0						
ANIMI, fine washed sorts	18 0 .. 20 0	18 0 .. 20 0	18 0 .. 20 0	18 0 .. 20 0	18 0 .. 20 0						
ARABIC, pale picked	8 0 .. 13 0	13 0 .. 13 0	13 0 .. 17 10	13 0 .. 17 10	13 0 .. 17 10						
ARABIC, mid. to fine	1 10 .. 2 0	2 0 .. 2 0	3 6 .. 3 6	3 6 .. 3 6	3 6 .. 3 6						
TURKEY, pick. gd. to fin. second & inferior	1 5 .. 1 0	1 10 .. 1 5	1 15 .. 2 0	1 15 .. 2 0	1 15 .. 2 0						
sorts	5 0 .. 7 0	7 0 .. 9 0	9 5 .. 10 0	9 5 .. 10 0	9 5 .. 10 0						
KOWRIE, sorts	2 10 .. 5 0	5 0 .. 6 0	5 0 .. 6 0	5 0 .. 6 0	5 0 .. 6 0						
selected	2 15 .. 3 15	3 0 .. 3 15	3 0 .. 3 15	3 0 .. 3 15	3 0 .. 3 15						
MASTIC, picked	3 0 .. 3 6	1 6 .. 3 3	1 6 .. 3 3	1 6 .. 3 3	1 6 .. 3 3						
MYREH, good and fine ordinary to fair	80 0 .. 140 0	80 0 .. 140 0	80 0 .. 140 0	80 0 .. 140 0	80 0 .. 140 0						
OLIBANUM, p. drop amber and yellow	40 0 .. 45 0	33 0 .. 42 6	33 0 .. 42 6	33 0 .. 42 6	33 0 .. 42 6						
SENEGAL	36 0 .. 0 0	0 0 .. 0 0	36 0 .. 0 0	0 0 .. 0 0	36 0 .. 0 0						
SANDARAC	40 0 .. 45 0	40 0 .. 45 0	40 0 .. 45 0	40 0 .. 45 0	40 0 .. 45 0						
SHELLAC, Orange	90 0 .. 110 0	90 0 .. 110 0	90 0 .. 110 0	90 0 .. 110 0	90 0 .. 110 0						
LIVER	120 0 .. 130 0	117 6 .. 127 6	117 6 .. 127 6	117 6 .. 127 6	117 6 .. 127 6						
THUS	80 0 .. 87 6	75 0 .. 78 0	80 0 .. 87 6	75 0 .. 78 0	80 0 .. 87 6						
TRAGACANTH, leaf in sorts	200 0 .. 260 0	200 0 .. 260 0	200 0 .. 260 0	200 0 .. 260 0	200 0 .. 260 0						
OILS.	£ s. £ s.	£ s. £ s.	£ s. £ s.	£ s. £ s.	£ s. £ s.						
SEAL, pale	36 0 .. 0 0	36 0 .. 0 0	36 0 .. 0 0	36 0 .. 0 0	36 0 .. 0 0						



Dispensing Difficulties.

To the Chemist and Druggist—

SIR.—That my letter on this subject has called forth so many replies is gratifying, and more especially so in finding by your addenda to them that you had considered the matter so important as to make a series of mixtures according to the formula with liquid extract of cinchona obtained from different sources. One fact I note with considerable pleasure—that the mixture you obtained by using Battley's preparation resulted in a most unsightly mixture, no matter in what manner or order the ingredients were mixed; also, that when using the extract prepared by some of our historical houses you find a bright red and permanent mixture produced, even when the ingredients are mixed haphazard. This relieves my mind as to the extra skill claimed by Messrs. Tomlinson, Prosser, and two country dispensers in their method of dispensing.

In order to clear the way I may as well say that my order of mixing was exactly that pursued by Mr. Tomlinson, and with the result named in my letter.

I am fortunate in possessing one dose of the mixture as originally first dispensed, which, although perfectly bright still, and caramel-like in colour, has an additional label on the bottle directing the patient to "Shake the bottle before the medicine is poured out." Under the circumstances, and he being so assured of its keeping bright (there are but eight doses, lasting four days), why this direction was considered necessary by the dispenser is not quite clear.

Dr. Liveing's intention was evidently to prescribe an alkaline tonic, and the mixture as first dispensed appears to me to be lacking in therapeutical value as to the bark extract. My extract was obtained from Messrs. Hodgkinson's, of Whitecross Street.

If the gentlemen who have written on the subject will turn to the paper read by Dr. B. H. Paul on "Liquid Extract of Cinchona," and the subsequent discussion thereon, reported in the *Pharmaceutical Journal* No. 663, third series, they may find some explanation of the brightness of their mixtures prepared from their liquid extract, *i.e.*, deficient strength in its alkaloidal and general value.

The extra cinchona liq. was, in my opinion, introduced into the *Pharmacopœia* to take the place of Battley's preparation, in such general use. In fact, Dr. Redwood claims that the method adopted by Battley and the directions given in the *Pharmacopœia* are identical; and, if such be the fact, would not one be justified in reasoning that a mixture dispensed from the *Pharmacopœia* extract should present a similar appearance to that obtained by you when using Battley's extract?

I am, yours,

A COUNTRY DISPENSER.

[The whole point of this discussion, as pointed out in our last note, is that the various liquid extracts of cinchona found in the market differ widely in their constitution, and consequently in their behaviour, when dispensed in such prescriptions.]

To the Chemist and Druggist—

SIR.—By following the instructions of your correspondent, T. H. Prosser, I found a perfectly-compatible mixture with the ingredients of the prescription mentioned in your last issue, but on laying it aside for a few days a dark-brown sediment was deposited.

I thought the sample of extract of cinchona I used was the cause of this, so I tried another maker's, with the result of a nice dark and bright mixture, and no deposit was noticeable after the same interval of time.

A somewhat similar difficulty is overcome by mixing in the same manner a prescription handed me some time ago—

Ammon. carb.	..	..	..	..	..	..	gr. xx.
Ext. cinchon. liq.	..	..	..	..	..	..	3ss.
Ext. glycyrrhize liq.	..	..	..	..	..	..	3iiss.
Aq. ad	..	..	..	..	..	..	3vj.

Would it not be commendable to open a dispensing department in the columns of THE CHEMIST AND DRUGGIST? I am sure it would be hailed with pleasure by many, both for interest, practice, and information, and especially by those who get little difficult dispensing put in their way. Congratulating THE CHEMIST AND DRUGGIST on its increase of circulation, and wishing it still greater success and prosperity in its future, I conclude with apologies for taking so much of your valuable space.

Yours, &c.,

ASSISTANT. 21/146.

[We are very glad to afford discussion of every legitimate dispensing difficulty, and are always ready to take trouble to clear up such by experiment if necessary. But we should not be disposed to give up much space for the settlement of every little point arising to a dispensing novice, which would only be waste material to the majority of our readers.—ED. C. & D.]

Copies of Prescriptions.

To the Chemist and Druggist—

SIR.—I am engaged in a first-class pharmacy in one of the suburbs. Our trade is chiefly dispensing, and our customers are mostly of the upper classes, and, therefore, deal pretty regularly at the stores, but they come to us when it suits their convenience. We are frequently asked for a copy of such and such a prescription. The copy is generally required to take to the stores, or, perhaps, to give to a friend who deals elsewhere. We have, therefore, for some time past made it a rule to charge 1s. for a copy, and this, we think, is a very fair and reasonable charge. I am aware that this is not the general custom of the trade, but I see no reason why it should not be so, as I think the experiences of all chemists will agree with the above. Besides, to copy a prescription takes time, and requires special knowledge, which the public, grocers, oil-shop storemen, &c., do not possess, and can belong to no one's business but that of chemists; and chemists now must make their money where they honestly can. Again, it is not the prescriber's intention or desire that his prescription should be made a public recipe; and, if all chemists charged for copies, this would, to a great extent, stop their circulation, and people would have to come to the chemist, who has the prescription copied in his books, to have it made up, instead of taking it to a price-cutter.

Croxton Road, West Dulwich, February 24.

F. FREEMAN.

Synonyms.

To the Chemist and Druggist—

SIR.—You certainly appear to do all in your power to make your journal most useful, and I well know your efforts are appreciated. You ask for suggestions, and I venture to make one. Some few years since you published in one of your Diaries, which, to my regret, has disappeared from my establishment—a list of drugs, &c., bearing different names. I thought at the time it might be very much extended and improved if your readers would help in the matter. I doubt not but almost every county has a peculiar name, say for blue ointment. Suppose in next issue you asked your readers to keep a mem. of curious or antiquated words and signify the drug intended; let this go on until September, and with your next Diary publish the collected information. I think you would get the blessings of many an apprentice who may change from north to south or east to west. I have seen many a one puzzled when asked for vitriolated tartar, sal. enxon, blue butter, dulcified spirit of salts, sweet pepper, &c. Gray's Supplement is a most useful publication, and supplies a lot of information, but not all; and, in addition, it is scarce and seldom found in modern drug establishments.

If you think these suggestions worth anything, I shall be glad to give you all the synonyms I can.

Yours truly,

F. D. DELF.

[We shall be glad to publish such as are sent, and if we receive a sufficient number of novelties we will print in next Diary a revised Dictionary of Synonyms, basing it on the one which appeared in the Diary for 1878.—ED. C. & D.]

Tablespoonful.

To the Chemist and Druggist—

SIR.—What will the advocates of "Tablespoonful" say about the annexed extract, taken from a local paper referring to "The Cold Snap in America"? "On the railways in the neighbourhood of Chicago whole ears full of cattle were frozen to death."

Is it not sad to think that the poor "ears" were all frozen "even unto death"?

Yours truly,

JAMES WHITELAW.

Glasgow, February 6.

48/145. **Cement for Indiarubber.**—*Anon* wants a luting that will fasten a split in an indiarubber enema, which is otherwise in good condition.

The following appeared some years ago in the *Druggists' Circular*, and is said to answer the purpose of gluing together all rubber surfaces.

Parts

Virgin caoutchouc 2

Sulphide of carbon 12 to 14

Cut the caoutchouc into thin slices, put it into a close vessel of tinned sheet iron, pour over it the sulphide of carbon, and by means of a water-bath bring the temperature to about 86° F. The solution will take place promptly, but the liquid will thicken very soon, rendering the application difficult if not impossible. In order to prevent this thickening the following solution must be added in quantity sufficient to bring the mixture to the consistency of a thin paste:—

Parts

Virgin caoutchouc 1

Powdered resin $\frac{1}{2}$

Spirit of turpentine 3 to 4

Cut the rubber in pieces, heat in a suitable vessel over a moderate fire until the gum becomes fluid, then add the resin and allow it to dissolve. When the materials are perfectly fluid add the turpentine gradually by small portions at a time.

F

Dog Poisoned with Strychnine.—Treatment.*To the Chemist and Druggist—*

SIR,—Perhaps my experience may be useful to those who may have occasion to treat a dog poisoned by strychnine. I have a retriever whelp, about eight months old. Taking him with me for a walk to-day, he suddenly rolled over and became convulsed, the limbs stretched out and rigid, and eyes protruding. I at once thought of the vermin-killer which had been put down for the mice at home, and of which I found he must have eaten sufficient to dose him with 3 or 4 grains of strychnine. Carrying him to a spring—which was, fortunately, near—I dashed the water over him, manipulating the muscles of the chest so as to induce artificial respiration; this I found good treatment, as the lungs of a dog are easily kept in action. After a considerable time, during which I despaired of seeing him move again, a gasp pronounced that life had not left him. Still, the poison was yet in the stomach; so, carrying him to the nearest house, I gave him a small handful of salt, holding the muzzle to compel him to swallow it. This generally acts as an emetic for a dog, and (N.B.) is a good remedy for *distemper*, bringing away the foul mucus from stomach and nostrils. Well, my dog was not sick! The strychnine seemed to neutralise all ordinary emetics. Carrying him home, another paroxysm set in, in which limbs and body became as rigid as any dead dog. Still followed up the cold water and movement of lungs, and again with success. Gave now 10 grains *Pulv. ipecac.* and a quantity of mustard and water without any effect. In half an hour, during which the muscles were twitched in a painful manner, another convolution occurred, and this time I quite despaired of his recovery—tongue protruded, eyes filmy and protruding, the whole body seemed to become rigid; in fact, the dog was to all appearance dead. Still I kept on the movement of the chest, and again, in a marvellous manner, he rallied. As a climax, I now gave him $\frac{1}{2}$ ij sulphate zinc and $\frac{1}{2}$ oz. *ipecac. wine*, repeated in ten minutes. This had the desired effect, the dog vomiting freely and rapidly recovering. The best treatment, then, seems to be, to prevent asphyxia, by dashing cold water on the head, and moving the chest so as to produce artificial respiration until the spasm ceases; then, an emetic of sulphate of zinc and *ipecac. wine*. The teeth are too firmly set, and the muscles of the larynx too constricted, to allow a drench being given during the spasm.

Yours obediently,

W. S.

Madeley, Salop, February 5.

Coffee and Coffee "Extract."*To the Chemist and Druggist—*

SIR,—Last month you alluded to a letter which appeared in the *Times*, from Mr. H. S. Carpenter, hearing the above title. We venture to ask the favour of space for this communication, on the plea that, as manufacturers of essence of coffee for now fully forty years, we may not unjustly lay claim to a "vested interest" in the subject.

Not being makers of coffee "extract," if Mr. Carpenter's aspersions had been confined thereto we would not have felt called upon to notice his communication. To anyone, but undoubtedly to an analyst, the addition "to his cup" of "a colourless liquid," on the plea that it was the substantial ingredient in the beverage which he had called for, that beverage being coffee, would not unnaturally suggest "juggling"; and, following up his own suggestion, the restaurant in question would appear to us to afford an excellent field for the exercise of Mr. Carpenter's professional attainments for "proceedings under the Adulteration Act."

When, however, Mr. Carpenter goes on to add that "the fact simply is this—coffee possesses stimulating properties and these imitations do not, and I am of opinion that their substitution is distinctly a fraud," we feel ourselves called upon to notice a public statement which, if allowed to pass unnoticed, not only directly discredits, and is calculated most gravely to damage, our trade, but which also impugns our character.

We hereby, therefore, challenge Mr. Carpenter to prove that our essence of coffee—

1. Can be classed with "imitations," or with such preparations as "contain no coffee," and that its substitution is "distinctly a fraud."

2. That it "does not possess stimulating properties," nor such "stimulating properties" as are derivable from absolutely unadulterated coffee.

For these purposes Mr. Carpenter is at liberty to procure in the open market anywhere, for his guidance—and for the exclusion of the faintest suggestion of collusion, say, from Messrs. Crosse & Blackwell—an unopened, authentic bottle of our "essence" in question, we stipulating that, in presence of Dr. Attfield, chemist to the Pharmaceutical Society of Great Britain, Bloomsbury Square, he open the same, and that he retain the one-half of the contents, the other to be immediately sealed up in Dr. Attfield's presence and to be preserved by Dr. Attfield.

If Mr. Carpenter prove our contentions to be untrue, to Dr. Attfield's satisfaction, we hereby undertake, not only to discharge Mr. Carpenter's fee, but also to place, sir, in your hands the sum of 50*l.*, to be by you handed to any London charitable institution that you may select. Failing, however, Mr. Carpenter's ability thus to substantiate his said allegations—in which case we shall be liable in no expense whatever—so we call upon him, as an honourable gentleman, so far as our firm is concerned, equally publicly to withdraw them.

We are, &c.,

Edinburgh, and 12 Worship Street,

T. & H. SMITH & CO.

London, February 6.

Wholesale Druggists and Poisons.*To the Chemist and Druggist—*

SIR,—I am induced to ask through your columns, to what extent chemists are indebted to some of the wholesale houses for conforming with the requirements of the existing Pharmacy Acts.

Is it not generally well known that unqualified keepers of drug-stores and patent-medicine vendors have no difficulty in being supplied with all the scheduled poisons?

And what use is made of them we can imagine.

Wholesale houses greatly err in sending out, as they do, so many articles of a dangerous character not labelled "Poison." Two or three instances strike me as having occurred lately to my knowledge:—

Oxalic acid,
Liq. morphiae mur.,
Tinct. nucis vom.

There is room here for more care and prudence.

Yours truly,
X. Y. Z.

The Chemists' Ball, January 16, 1884.

It was a great affair,
Most "swell" I do declare;
And Mr. Godfrey's hand,
The finest in the land,

Was there.

The council all in state,
With chairman wond'rous great,
And even those who'd faint
Old *status quo* regain

Were ther.

Fair ladies softly smiled,
And pharmacists beguiled:
And lips did speak to hearts,
For Cupid with his darts

Was there.

Aye, many a soft, soft glance
Shot through the mazy dance,
For beauties that would seem
Beyond a poet's dream

Were there.

But, NEXT DAY, some were sad,
And others felt quite "had";
E'en some were heard to say
They wished that never they

Were there.

JAMBONNOIR.

[We have omitted a few verses from the above as our space for poetry is necessarily limited. If our correspondent had written in prose we should have felt bound to ask whether it was the beauties, the hand, the president, or the unmentioned champagne which so much damaged the "next day."]

Curiosities.

Messrs. George Brothers send us an order they received for "eye dying," which, on inquiry, they ascertained was to paint the knee with.

A West-end pharmacist sends us the following "cases in practice." No. 1 looks more like a hit of chh wit than a genuine error:—

"An ever-fizzing settle-it powder." Querry effervescent "Seidlitz."

A couple of pills "suitable for a ladie's maid."

Dear Sir,—"Please send a pourful medic to work a passage through a constive parson."

26/145. *Inquirer.*—**Aureoline.**—We published analyses of various golden-hair fluids in March, 1869, the above among the rest. Our analyst (the late Mr. Henry Matthews, F.C.S.) found in a bottle containing $3\frac{1}{2}$ fl. oz. an equivalent to 42*4* minims of diluted nitro-hydrochloric acid, the rest being water, with a little perfume.

Liq. Santal Flav. c. Copain. et Cubebe.—Referring to an inquiry in our last, Mr. W. Lamson, Melrose, sends us the following, which he says, is a popular remedy for gonorrhœa, in Edinburgh, where it is known as "Neshit's Specific." It sells at 1*s.* 6*d.* per oz. :—

Ol. santal flav.	..	..	..	..	..	..	3 <i>v.</i>
Ol. copainæ	..	..	..	..	..	..	3 <i>s.</i>
Ol. cubebeæ	..	..	..	..	..	..	3 <i>ss.</i>
Ol. pimento	..	..	..	..	..	..	3 <i>j.</i>
Ol. cassiae	..	..	..	..	..	..	3 <i>j.</i>
Spt. vini rect. ad	..	..	..	..	..	..	0 <i>j.</i>

Dose 3*i.* twice a day in water.

Of course this might be easily altered, and tr. buchu substituted for spt. vini rect., making **Liq. Santal et Buchu et Cubebe.**

The Pharmacy Board of New Zealand.

To the Chemist and Druggist—

SIR.—I have thought that it might interest home readers to know something of how New Zealand is getting on in respect to pharmacy, and here-with enclose particulars of election of our new Board, which comes into existence in January, 1884. The term of office is three years, and the election has shown that the chemists take considerable interest in their own affairs, for the number who voted, taking into account those who had changed their residence, left the colony, or, I am sorry to say, who have died within the last twelve months, show that in any important matter chemists here will give their time and attention to it. I enclose in other cover copies of our last examination papers of October last. Of the candidates four came from Dunedin, two from Christchurch, two from Wellington, and four from Auckland; and, singular to say, just one-half from each place passed. I also send copy of "Schedule of Poisons under Sale of Poisons Act," copy of "Qualifications for Registration, &c., under Pharmacy Act, N.Z.," and copy of "Pharmacy Act Amendment Bill," introduced last session into Parliament, and passed by the Legislative Council, but shelved in the Assembly, together with about forty other measures of importance. It is almost sure to pass next session, as it has received the approval of a large majority of the chemists.

Yours respectfully,

JOHN A. ALLAN.

Wellington, November 15, 1883.

Extract from "Evening Post," Wellington, September 27, 1883.

The election of members of the Pharmacy Board of New Zealand took place this morning. Hitherto the Board has been a nominated one, with its headquarters in Wellington, Mr. Barraud being president, and Mr. J. A. Allan registrar. The new Board consists of seven members, elected by the registered chemists of the colony. Twelve candidates were nominated, five being from Dunedin, four from Auckland, two from Wellington, and one from Christchurch. A somewhat keen contest took place between Auckland and Dunedin in the attempt to get a quorum of local members so as to secure the headquarters of the Board. Mr. J. A. Allan acted as returning officer, while Mr. Barraud was scrutineer for the Auckland candidates, and Mr. Gillon scrutineer for the Dunedin candidates. Out of about 270 registered chemists in the colony, 197 voted, but nineteen of the papers were informal. The mode of voting was by signed voting-papers enclosed in printed envelopes, which were opened this morning. Amongst the registered chemists who exercised the franchise were four ladies, who are duly qualified. The voting resulted as follows:—Bonnington, Christchurch, 132; Aicken, Auckland, 113; Edison, Auckland, 109; Pond, Auckland, 109; King, Auckland, 106; Brittain, Wellington, 104; Bagley, Dunedin, 94. These gentlemen form the new board. The other candidates were:—Leary, Dunedin, 78; Elder, Portchalmers, 67; Marshall, Dunedin, 57; Isaac, Dunedin, 40; Fitzgerald, Wellington, 29.

[The above letter was accidentally omitted from our last number.]

143/59. A Cheap Permanent Show-bottle Colour.—*Magnesia* writes:—In your list of recipes for colouring show-bottles you have not given one containing an organic colour which is not liable to fade. There is, however, one such colour, as splendid as cobalt and vastly cheaper, while equally durable: a few grains of pure alizarine, or the alizarine paste as sent from the Fabriken, dissolved in a little ammonia and diluted down to shade desired. Everyone knows the permanency of Turkey red. One bottle in my window, filled three years ago, is brighter and more beautiful-looking than at first.

29/142. S. T. A. D.—When *Liq. Morphiae* is ordered in a prescription, should *liq. morph. acet.* or *liq. morph. hydrochlor.* be used? Dr. Whittle in his "Elements of Pharmacy, &c.," says in such a case the dispenser will do well to always employ *liq. morph. mur.* But we may add that it is presumable that when the prescriber orders the preparation thus he really does not care which is used.

148/7. A Reader.—For Promoting the Growth of the Hair.—*Linimentum crinale* is recommended by Squire, who gives a formula in his "Companion." It is as follows:—

Cantharidine	..	..	..	..	..	..	1 grain
Acetic ether	..	..	..	..	..	..	½ oz.
Dissolve and add—							
Rectified spirit	..	..	..	..	..	..	3 oz.
Castor oil	..	..	..	..	..	..	1 "
Oil of lavender	..	..	..	..	..	..	15 minimis

"This liniment is highly recommended to be applied to the head where the hair is falling off, and is said, even, to cause it to grow on bald places; but, after applying it a few times, the head should be washed, or it may accumulate and cause too much irritation."

149/6. J. T. D.—Fish oils may be decolourised by shaking with animal charcoal and filtering, or, better, with fullers' earth, dry and warm. It will be well to experiment with a small quantity, as a good deal depends on the cause of colouration.

"The Medical Annual and Practitioners' Index."

To the Chemist and Druggist—

SIR.—In a kindly notice of the above publication you remark, respecting the section "Progress of Pharmacy," that it "would seem to indicate that pharmacy progresses only by the energy of a few enterprising firms." Will you permit me to explain that this indication is quite accidental? We are anxious to make this section a complete register of genuine improvements in pharmacy. The rules we have made for our guidance in selecting preparations are printed at the head of the section, and no distinction whatever has been, or will be, made in favour of any particular firm or preparation.

Printed forms are supplied, on application, to chemists or druggists wishing to give particulars of any improvement in pharmacy.

Yours respectfully,

82 High Holborn, W.C.

PERCY R. WILDE, M.B.

22/146. *Menthol Cones*.—Jambonnoir informs "An Old Subcriber, 63/150," that these are generally made by simply dissolving the menthol with heat and moulding in 70 gr. or 120 gr. pessary moulds. The menthol is sometimes, but very rarely, diluted with cetaceum.

Blackening for Artificial Negroes.—We were asked about this matter lately, and have since met with an extract from a San Franisco paper wherein a reporter gives the information he has obtained from a man in that city who devotes his whole time to the preparation of the pigment. He thus describes his process:—

"I first gather my corks. I get them from the big bottling-houses, who buy lots of bottles, many of them with corks that would not keep the air out of wine or beer.

"When I get ready to burn, I put the corks into those three wash-boilers you see there with holes punched in their sides and bottom, sprinkle alcohol over them, and set them afire. Then I fill one of those muslin sacks with the charred cork, and knead the sack in this barrel of water. That forces the powdered charcoal through the sack into the water.

"When I have worked all my charred cork through this sack into the water, I drain the water through a close canvas sack you see on that frame there, and what remains in the canvas sack is ready for the artists. I put it up in 1-lb. tins, and they use it out of them. When a performer is ready to 'black up,' as they call it, he takes a little of this black paste in his hands and washes his face, neck, and hands in it, and he is blacked as you see him on the stage."

Works on Medical Electricity.—The following information has been sent to us anonymously:—"In answer to your correspondent respecting electrical treatment, in January CHEMIST AND DRUGGIST, the best English books on the subject are—'Electricity in Medicine and Surgery,' by Dr. Poore, published by Smith, Elder & Co.; 'Medical Electricity,' by Dr. Tiblett, published by J. & A. Churchill; but better than either is 'Medical and Surgical Uses of Electricity,' by Drs. Beard and Rockwell published by H. K. Lewis, 136 Gower Street, London. 'Butler on Electro-therapeutics' treats of the subject from the homoeopathic point of view."

2/134. *Wintonia*.—There need be no difficulty in extemporisng a formula for a **Carbolic Tooth-powder**. From 2 to 2½ parts of absolute phenol may be thoroughly incorporated with 100 parts precipitated chalk and ponderous carbonate of magnesia, the mixture coloured to any degree with carmine, rose, pink, or other suitable agent, and the whole flavoured with essential oils so as to modify the powerful smell of the carbolic acid.

141/20. *Jumbo*.—**Ink for Marking Sacks.**—A formula given at the bottom of page 612 of our December number suggests the use of a borax and shellac varnish with a pigment, such as lampblack or aniline. We fancy this could be successfully adapted. Perhaps Dr. Dommett Stone's "Epitome of Therapeutics," 8s. 6d., published by Smith, Elder & Co., would best suit you.

32/146. *J. W. (Manchester)*.—We think the preparation would require the patent-medicine stamp, because on the label you recommend it "as beneficial to the prevention, cure, or relief of a distemper, malady, ailment disorder, or complaint incident to the human body." It would not save you to remove the words from the label if in any other printed or written form you so recommended the medicine. Remember, a medicine is liable to medicine-stamp duty for either of the following reasons:—

- (1) If an occult secret or art in the preparation is claimed.
- (2) If an exclusive right or title in preparing it is claimed.
- (3) If the compound is, or ever has been, patented.
- (4) If, in any printed or written form, recommended as above described.

47/146. *Look-out*.—If you send to the Patent Office, Southampton Buildings, enclosing the price of any specifications wanted, giving the years when issued, and the numbers of the specifications, and sending an extra stamp for postage, you will obtain them.

145/4. *Charlatan.*—Full particulars concerning the examinations of the Society of Apothecaries can be obtained on application to Mr. Sargent, Apothecaries' Hall, Blackfriars, E.C. Under the present law, lieutenates of the Apothecaries' Society are allowed to practise medicine with no other qualification; but it seems probable that this privilege will not be allowed to remain after the passing of the Medical Act Amendment Bill. If you wish to secure it you must lose no time. The Preliminary examination of the Pharmaceutical Society is not accepted by the General Medical Council, so that it cannot be taken in lieu of the Arts examination of the Society of Apothecaries.

145/9. *T. P. B.*—Nothing can be used for destroying nits which is not poisonous in itself, and care must be taken to prevent internal use. The best preparation seems to be an ointment of stavesacre (see Squires' "Companion"); and as the active principle is the fixed oil, it is impossible to make any preparation but a soap that would not be oily. It is possible that the saponified oil would retain its power. A weak solution of corrosive sublimate has been used, but, of course, requires great care. Perhaps some reader can supply a reliable form for a liquid application, not oily, to destroy lice or nits in the head, and to remove dandruff, which can be used freely with safety.

Formulae for ink for gelatine copying pads are given on page 105 of our volume for 1882.

Mr. Wilks gives an extract from the *Newcastle Chronicle* on **Botanic Beer**:-

(1) Coarse sugar 1 lb., 3 sticks of horehound. Pour upon this 1 gallon of water, and boil for half an hour. When cold, mix 1 teaspoonful of yeast in it. Bottle off next day, and it will be ready for use in two or three days.

(2)		Oz.
Horehound
Burdock leaves
Ginger
Hops
Gentian root

Boil in 5 gallons of water for one hour, and then strain. Boil the ingredients again with 3 lbs. brown sugar and 2 oz. extract of liquorice, with 3 gallons of water, for another hour, and strain. Add yeast, allow to ferment for twenty-four hours, and then bottle.

I think these may furnish the inquirer with data sufficient to form a good herbal beer of his own.

51/146. *G. B. S.*—A person on the register as an existing practitioner under the Veterinary Surgeons Act, 1881, is entitled to call himself "Veterinary Surgeon," but he, like anyone else, is liable to a penalty of 20/- if he takes any name, title, addition, or description implying that he is a fellow or member of the Royal College of Veterinary Surgeons.

31/152. *T. H. B.* wants to know who makes dispensing-bottles bearing the brand "W." If the maker sends us the information we will transfer it. He also wants a good formula for a **Ginger ale Syrup**. This can be made by first making a tincture from the following formula:-

Jamaica ginger crushed	..	..	..	..	3 lbs.
Fresh lemon-peel	..	..	..	..	1 lb.
Powdered capsicum	..	..	..	..	½ oz.
Alcohol	..	..	..	..	1 gallon

Macerate for fourteen days and filter. Use 3 oz. of this tincture to 1 gallon of simple syrup. To have the mixture quite clear it is best first to evaporate the 3 oz. of tincture to a small bulk, which rub with chalk, and gradually add water, then mix with a thicker syrup after filtration.

8/150. *G. C.—Dry Soap.*—We cannot give the formulae of particular makers. We have the impression that all soap and washing-powders are either soda ash simply, or soda ash mixed up with gum, linseed, or Irish moss decoction, or some other mucilaginous compound, dried and crushed. We publish a few other soap-powder formulae in this number. Perhaps they will meet your requirements.

41/146. *J. W.*—We are sorry we have not pleased you. We often do make experiments ourselves for the benefit of our querists, but correspondents who are not satisfied with anything short of "perfect" information must apply elsewhere.

Anon.—We know of no more useful veterinary reference-book than Beasley's "Druggists' Receipt-book," 6s., Churchill.

147/21. *Carolus.—Etching on Copper.*—*Etching Ground.*—Melt together 5 parts of beeswax and 1 part of linseed oil. A strong needle firmly mounted in a handle will serve as an etching-needle. *Etching Fluid.*—Mix 1 part of aqua fortis with 2 parts of water. The copper must first be covered with the etching ground. The design is then scratched on the metal through the ground by the etching-needle. A border of wax is then put round the plate, and the etching fluid is poured on and allowed to remain till the lighter or finest portions of the design are sufficiently bitten in. The etching fluid is then poured off, the plate washed, and the light parts "stopped out" with Brunswick black or other varnish. The etching fluid is poured on again, and the process repeated till the very deepest lines are sufficiently bitten in.

For your musty old cabinet we should be inclined to recommend a thorough treatment with Sanitas to remove the mustiness before attempting to perfume it. Write to the company for advice, and please let us know how you succeed.

3/152. *Lincoln.—Aniline Yellows* are no doubt poisonous, and would not be suitable for colouring sweets. Saffron or turmeric is generally used. Reimann's "Technologie des Anilins," in German, is the standard work on the subject. A series of lectures on "Aniline, or Coal-tar Colours," by Mr. W. H. Perkins, F.R.S., was published in the *Society of Arts Journal* in 1862, and there is a good section on coal-tar products in Spon's "Encyclopedia." You can probably get the part containing it separate from the rest of the volume.

7/156. *Borax.—Egg-powder* is baking-powder to which a slight yellow tint is given by means of turmeric. Follow the subjoined formula:-

Tartaric acid	..	..	..	..	..	1 lb.
Bicarbonate of soda	..	..	..	..	..	1½ "
Potato-flour	..	..	..	..	..	1½ to 2 "
Turmeric	..	..	..	..	..	¼ oz.

The powders should be carefully dried by very gentle heat, mixed and sifted, and packed with as little contact with the air as possible. **Essence of Rennet** is always made from calves' stomachs. We see no reason why a considerable quantity should not be made at one time; but the product from each rennet ought to be kept separately, for the reason suggested in the Diary. The quantity indicated is for a medium-sized stomach. For very large or very small ones use proportionately more or less. **White Oils.**—We re-published this formula twice last year:—Eggs, 12; soft soap, 5 oz.; turpentine, 12 oz.; strong solution ammonia, 6 oz.; strong acetic acid, 8 oz.; camphor, 5 oz.; methylated spirit, 10 oz.; eucalyptus oil, 2 oz.; water to 5 pints. Beat up eggs and soft soap in a large mortar and gradually work in half the water. Then add, with constant stirring, the camphor dissolved in the spirit, then the eucalyptus oil in the turpentine next the solution of ammonia, and lastly the acetic acid diluted with the rest of the water.

34/150. *J. R. W.*—See answer to *Borax*.

Italian Pharmacy.

To the Chemist and Druggist—

Sir,—Would you allow me to inquire, through your valuable columns whether any fellow-reader will give me any information respecting Italian pharmacy? Are the Italians, like the French, addicted to brewing "tisanes" from leaves and roots? and have they many popular names for drugs besides those of the dictionary?

Yours faithfully,
R. J. W. (19/146.)

27/145. *Querist* asks (1) How to overcome the peculiar pungency of English lavender oil when mixing for perfume? (2) How long a mixture of white lead and litharge should be hardening when used as glazier's putty or if anything better can be suggested for fixing a sheet of glass into the iron frame of an aquarium? With regard to (2), he says he has used the litharge and white lead, and, though now three weeks done, it is quite soft.

14/279. *Iota.*—Will any chemist inform me how to dissolve gum mastic and gelatine together?

8/141. *A Country Druggist* asks us about the origin of the **Coloured Carboys** in druggists' windows. We should like to have suggestions on still better, direct facts to account for the practice of using such.

33/150. *Chemist* (Edinburgh) would like to know what are the ingredients in Coakle's pills.

14/157. *G. J. J.* asks what would make new leather take harness comp. He has tried almost everything and failed.

PURE OXIDE OF ZINC (HARRIS & CO.'S),

In 1-lb., 2-lb., 4-lb., 7-lb., 14-lb., and 28-lb. Boxes, 1'-lb. Special quotations to large buyers.

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(Prepared by the Daughter of the late John Bond.)

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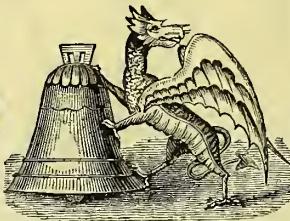


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CELLOIDINE (Patent)	Gelatine plates	Purest Pyroxylin; in explosive.
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IODINE	Resublimed, fine scales	Purest.
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“ CYANIDE	Ditto ditto	30%, 45%, 60%, and 95%.
“ PERMANGANATE	Large and small crystals ...	Chemically pure.
“ IODIDE	Fine white dry regular crystals ...	Apply Barytic and other tests. This will never change colour.
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SODA SALICYLATE, and other Salicylates	White powder and crystals ...	Freely soluble in water and alcohol.

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ERGOTINE, pure Dialysed ...	Brown colloid, purified by Dialysis	Free from all saline matter present in the ordinary Ergotine and extracts.
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PEPSIN PORCI (100%) ...	White, sweet, odourless powder ...	Freely soluble in water, not hygroscopic, and will not deteriorate; will dissolve (by Wittstein's test) 100 parts of white of egg and 250 parts of fibrine.

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THE ten years' grant of the right to manufacture this article in Great Britain, under a royalty, expired on the 31st ult., and the sole right has reverted to us, its original owners. In resuming the manufacture of HAGAN'S MAGNOLIA BALM and our direct connection with its sale, we cordially thank the Trade for keeping this article prominently on their lists, and assure them that every attention shall be given to their future commands. We particularly desire to be advised respecting supplies of SHOW CARDS and PRINTED MATTER for retailers. Our London address will be duly announced; meantime we will ask you to address any orders to us, Care of MR. JOHN M. RICHARDS, 92 and 93 GREAT RUSSELL STREET, LONDON, who will duly forward same to us.

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Five grains of Extractum Pancreatis added to a pint of milk at 100° F. will convert all the casein into peptone in about one hour; the milk cannot then be curded even by strong nitric acid, or by rennet.

The only apparent change is the development of a slightly bitter taste.

In many cases it is sufficient to only partially digest the milk—for 20 to 30 minutes or so—then little or no bitter taste is developed.

The usual dose of Extractum Pancreatis for Intestinal Indigestion is about four grains (in a capsule tablet), to be taken an hour or so after the food.

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Five grains of this Extract of Pancreas will produce more effect upon starch or milk than ONE OUNCE of saccharated Pancreatine or mixture of Pancreatine, under the same condition.

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We make a Speciality of Preparations of the PURE DIGESTIVE FERMENTS both of the STOMACH and the PANCREAS.

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Price 5s. per Ounce.

Our Pepsine in Scales is the first pepsine ever produced guaranteed free from Hydrochloric Acid, Salt, Starch, Milk-sugar, Artificial Peptone, or any added substance. Although the digestive strength as claimed by us is unprecedented, this has been verified by actual test by some of the best pharmacists and physicians in the country, and cannot be refuted.

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One grain digests 1,000 grains of albumen in four hours, in the standard acid albumen mixture of the U.S. Pharmacopoeia. The most active and permanent preparation of pepsine in the world.

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 " " Root "
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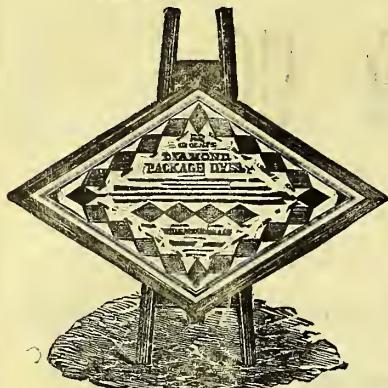
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24,000 Gross Sold in Six Months.

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BRILLIANT. DURABLE. SIMPLE. ECONOMICAL.

For Silk, Wool, Cotton, Linen, Jute, Feathers, Hair, Paper, Basket Work, Easter Eggs.

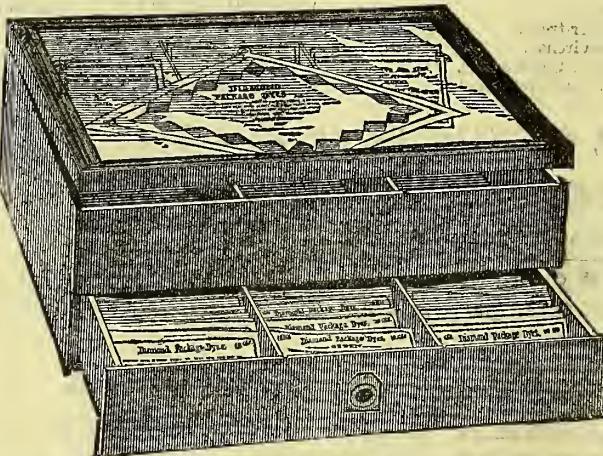
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Dark Blue	Navy Blue
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Olive Green	Dark Wine
Eosine (Pink)	Terra Cotta
Purple	Slate
Violet	Drab.



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Crimson	Yellow "
Black	Scarlet "
Garnet	Cardinal "
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What we give the Trade with an Order for Two Gross.

A beautifully finished Black Walnut Counter Case with Drawer, giving room for a full assortment of the Dyes. *See cut above.*

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The best Sample Cards and Show Cards ever got out for dye colours.

A beautiful framed Sample Card with easel stand. *See cut at top.*

A large Sample Book showing the colours made by the Dyes on Woollens.

A handsome Sample Book showing the colours made on Cottons.

Samples showing the colours of the Inks made from several Dyes.

Samples showing the Diamond Paints.

Our Goods may be obtained from S. Maw, Son & Thompson; Lynch & Co.; Bourne, Johnson & Latimer; F. Newbery & Sons; Barclay & Sons; W. Edwards & Son; Burgoyne, Burbidges, Cyriax & Farries; Baiss Brothers & Co., London; W. B. Fordham & Sons; Evans, Sons & Co., Liverpool; Goodall, Backhouse & Co., Leeds; Raimes & Co., York; Raimes & Co., Edinburgh; W. & R. Hatrik & Co., Glasgow; Clark & McMullen, Belfast, Ireland; Boileau & Boyd, Dublin; and from all Wholesale Druggists and Druggists' Sundriesmen throughout the World, or from the Manufacturers,

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AND AT 1 & 2 AUSTRALIAN AVENUE, LONDON, E.C.

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[See other page.]

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THE DIAMOND DYES were originated by scientific experts who determined to place before the people, in practical shape for their use, the magnificent dye stuffs recently discovered.

Their greatly superior quality has only been made possible by recent important chemical discoveries, made by leading scientists, both European and American. Two-thirds of the colours are made from dyes that were unknown two or three years ago.

In the largest factories, and for the finest goods, these new chemical dyes are rapidly superseding all the old dye stuffs, while for family use they are incomparably superior, being so much more simple, brilliant, and economical.

In durability they are unexcelled by any known Dyes.

The phenomenal success of the DIAMOND DYES in America, Canada, and Australia has induced the proprietors to introduce them in Great Britain.

These DYES must not be confounded with other articles purporting to be for the same uses. The Dyes heretofore offered in the English markets are made of materials altogether inferior, and they possess but a fraction of the colouring power of the Diamond Dyes, and entirely lack their brilliancy, beauty of colour, durability and fastness. In simplicity of use, and ample instructions for all purposes, the DIAMOND DYES are without a rival.

Dresses, Coats, Cloaks, Scarfs, Hoods, Yarn, Stockings, Carpet Rags, Ribbons, Feathers,
or any fabric or fancy article can be easily and surely coloured to any shade wanted. Each dye is complete in itself, thereby saving all extra expense and trouble of buying other articles to set the colour. All the colours are so simple in their method of use that even a child can be successful with them.

THE

DIAMOND DYES, FOR MAKING INK.

From a package of Diamond Dyes a pint of the very best ink can be made by simply dissolving in hot water. They are better than the Inks sold in small bottles and cost less than one-fourth as much. Scholars, Book-keepers, Merchants, Families, and all Writers will find them valuable for Writing, Copying, Ruling, Marking Goods, Checking, &c., &c.,

BLACK, BLUE, VIOLET,
GREEN, RED, ORANGE.

Full directions given for making Writing Ink, Copying Ink, Shading Ink, and Copygraph Ink.

For Colouring Easter Eggs, Feathers, Grasses, Mosses, Everlasting Flowers, &c., &c., the DIAMOND DYES are the best in the world.

We call particular attention to the following page, and to the Extracts from letters printed there. These letters were received by us from Wholesale Druggists in all parts of the United States, and from Canada and Nova Scotia. They prove all we claim for DIAMOND DYES, and show how vastly superior they are to all the Dyes heretofore on the market.

Our Goods may be obtained from S. Maw, Son & Thompson; Lynch & Co.; Bourne, Johnson & Latimer; F. Newbery & Sons; Barclay & Sons; W. Edwards & Son; Burgoyne, Burbidges, Cyriax & Farries; Baiss Brothers & Co., London; W. B. Fordham & Sons; Evans, Sons & Co., Liverpool; Goodall, Backhouse & Co., Leeds; Raines & Co., York; Raines & Co., Edinburgh; W. & R. Hatrick & Co., Glasgow; Clark & McMullen, Belfast, Ireland; Boileau & Boyd, Dublin; and from all Wholesale Druggists and Druggists' Sundriesmen throughout the World, or from the Manufacturers,



ONLY SIXPENCE A PACKAGE.

DIAMOND GOLD PAINT.

Equal in quality and quantity to the 1s. 6d. packages of other makers.
For Gilding Fancy Baskets, Frames, and every variety of Wood Work; Metallic Ornaments, Crosses, Emblems, Mottoes, &c.; Furniture and Household Ornaments; Repairing Gold Frames, and all other Gilded Work.

There is scarcely a household ornament that is not greatly improved by a little tasteful gilding, and many fashionable decorations are more than doubled in value by it.

There is no kind of ornamental work more fascinating to ladies than this, and none more easily executed.

DIAMOND SILVER PAINT.

This can be employed to decorate all articles on which Gold is used, and in some cases is more appropriate—or the two are often used together.

DIAMOND BRONZE PAINT.

This preparation may be used to decorate all articles on which Bronze produces the most appropriate effect. A coating of Diamond Bronze Paint will cause a well-made plaster figure to resemble a costly example in solid Bronze.

Chandeliers, Gas Fixtures, Lamps, and Ornaments, may be made fully equal to new, and at an insignificant cost. It is easily applied, and dries in a few moments.

DIAMOND ARTIST'S BLACK.

For Etching Picture Frames, Cabinet Work, &c., &c. It gives very handsome effects in contrast with the Gold and Silver Paints.

WELLS & RICHARDSON CO.,
125 to 135 College Street, Burlington, Vermont, U.S.A., and 223 McGill Street, Montreal;
AND AT 1 & 2 AUSTRALIAN AVENUE, LONDON, E.C.
AGENT FOR AUSTRALIA AND NEW ZEALAND—MR. W. H. H. LANE, SYDNEY, N.S.W. [See opposite page.]

1830

BAKER'S EMULSION OF COD LIVER OIL.

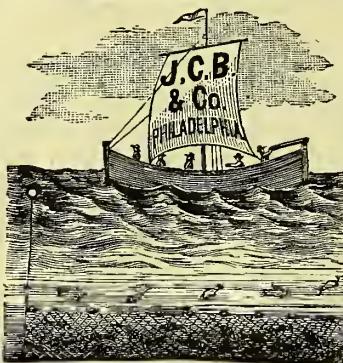
1883

A POTENT and PALATABLE REMEDY for Consumption and all wasting diseases is offered in

BAKER'S EMULSION

of finest Norwegian Cod Liver Oil, combined in an elegant form with Hypophosphites of Lime and Soda.

No preparation has ever met such a universal recognition by the



Medical fraternity, and its use is becoming constantly more extensive.

The superiority of

BAKER'S EMULSION

is acknowledged wherever known; and medical men would do well to avail themselves of the opportunity to test its merits, which can be done by procuring a bottle from the London Agents:

BARCLAY & SONS, 95 Farringdon Street,

who are also prepared to furnish samples to Physicians free on application.

CORRESPONDENCE SOLICITED.

JOHN C. BAKER & CO., Philadelphia, U.S.A.

BARCLAY & SONS are also Agents in Great Britain for

BAKER'S PILE SUPPOSITORIES

an astringent and balsam combined in most convenient form for application directly to the seat of the disease, affording almost immediate relief, and performing the most astonishing cures. Boxes containing 14 Suppositories sent by mail on receipt of 4/6; to Chemists or Physicians, 3/6.

JNO. C. BAKER & CO., Proprietors, Philadelphia.

B. KEITH & CO.,
MANUFACTURERS OF
**PURE CONCENTRATED
MEDICINES,**
CONCENTRATED TINCTURES, ETC.

We make a full line of RESINOIDS, such as PODOPHYLLIN, LEPTANDRIN, EUONYMIN, IRISIN, HYDRASTIN, &c., ALL PURE.

So-called Concentrations are in the market, called by the same name as our manufactures, that are made by triturating extracts, etc., with sugar of milk, powdered root, etc.

WHAT ARE CONCENTRATED TINCTURES?

They are not made from the crude material, but by dissolving the active principles in Alcohol in definite proportions, and invariably represent a uniform amount of therapeutic power.

Send for printed matter on CON. TINCT. AVENA SATIVA in the Morphia or Opium Habit, and certificates from different members of the Medical Profession, citing cases under their charge, treated by it; also REVISED AND ENLARGED MANUAL; also Price Lists, to

B. KEITH & CO.,
41 LIBERTY STREET, NEW YORK, U.S.A.

**AMERICAN MEDICINAL
ROOTS, HERBS, BARKS, &c.,
FOR EXPORT.**

PEEK & VELSOR, NEW YORK,

ESTABLISHED 1840.

WHOLESALE BOTANIC EXPORT DRUGGISTS.

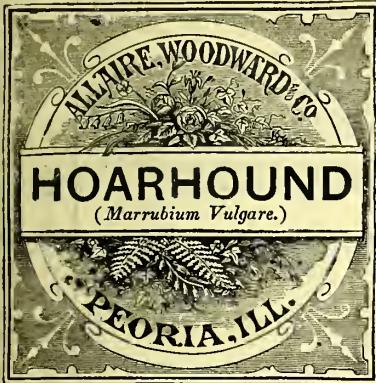
Medicinal Roots, Herbs, Barks, Seeds, Flowers, Crude, Crushed, Ground, and Powdered. All prepared under own supervision, and guaranteed strictly pure. Being the Oldest Exclusively Botanic House in America, with an experience of 40 years in testing and preparing American Botanical Products, we claim many advantages over competitors. Our reputation for serving our friends with goods of prime quality only, and at fair prices, has been long established. With this class of goods, **QUALITY** is of the first importance. Nothing is cheap if old or impure. We renew our stock every season, and will guarantee satisfaction to all who favour us with their orders. Orders should be accompanied with draft or New York reference. Quotations supplied on application.

SPECIALTIES—Peek's Asthma Cure, Peek's Liver Pills, Peek's Tincture Veratrum Viride, Peek's Syrup Sarsaparilla, Peek's Cough Syrup.

Also Roots and Barks, pressed, in one-lb. packets and Herbs and Flowers, pressed, in 8-oz., 4-oz., and 1-oz. packets.

ALLAIRE,
WOODWARD & CO.

COMMON NAMES.
White Hoarhound, Pressinum.
Gentian, Catmint, Catwort, and Balmleaf.
Gentian-Worm.



PROPERTIES.

Stimulant, tonic, expectorant, and diuretic. Useful in colds, asthma, and all pulmonary affections. Infusion, 1 oz. in a pint of hot water. Dose, a wineglassful.

ALLAIRE,
WOODWARD & CO.

COMMON NAMES.
White Hoarhound, Pressinum.
Gentian, Catmint, Catwort, and Balmleaf.
Gentian-Worm.

PEORIA,
ILLINOIS, U.S.A.,

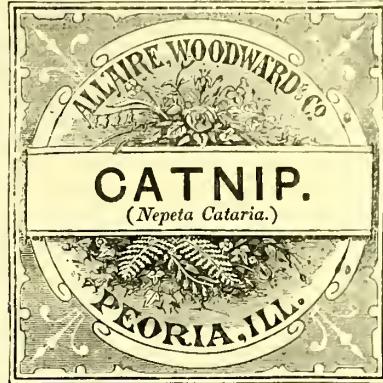
Desire to call the attention of Chemists to their line of

SUPERIOR

Choice Pressed
Herbs,

&c., &c.

Style of Package is shown in the accompanying Cuts.



PROPERTIES.

Tonic, diaphoretic, and carminative. Useful in flatulence, colic in children, and as an emmenagogue in amenorrhoea and dysmenorrhoea. Infusion, 1 oz. in a pint of hot water. Dose, a wineglassful.

IMPORTANT NOTICE.

Very little attention is generally paid by druggists to this class of goods, so that frequently (in fact it has become the rule) pressers never or seldom put their names on the packages, and, as a result, a large proportion of these goods in the market are short weight, old or inferior stock, not true to name, or otherwise objectionable.

If you wish to avoid all these serious objections, and at the same time secure a much handsomer package, having on it all the common or vulgar names, also the German and French names, the medicinal properties, formulas for the infusion and dose of the same, and, also, in the case of Poisons, the antidote, you can easily do it by specifying our brand (A. W. & Co.) when ordering of your jobber. In case inferior goods are substituted, we shall be pleased to receive your orders direct.

We believe it is only necessary to call the attention of the intelligent and thinking portion of the trade to these facts to secure a hearty support in our effort to supply superior goods at ordinary prices.

Our position as large consumers of this class of goods in the manufacture of Fluid and Solid Extracts and Sugar-coated Pills enables us to secure the best quality, gathered expressly for us, at the very lowest possible price, so that to secure better goods you do not have to pay more money, but simply exercise a little care in ordering.

Our name is on every package. Accept no other as ours.

POISONS are put up in YELLOW PAPER, and in this class are included all goods which, though not strictly poisons, should be dispensed with caution, such as Tansy, Savin, Pennyroyal, &c. Roots and herbs coming under this class have a cautionary label of yellow paper pasted on the front end. All other ounce packages are put in fine blue paper. The adoption of these styles by us, we trust, will reduce very materially the chances for mistakes in dispensing.

CAUTION.—During the past year nearly every presser of botanic goods in this country has adopted our style of putting them up, under the supposition that it is the wrapper which sells the goods. We are convinced, however, that it is the superior quality of the goods furnished which has given us the largest trade by far now done by any one house, and we trust that buyers will not be deceived by these external imitations.

PROPERTIES.
Dormeagogue, nervine, antispasmodic.
Dose, 1 oz. in a pint of hot water.
Infusion, 1 oz. in a pint of hot water.
Dose, a wineglassful.

PROPERTIES.
Stimulant, antispasmodic, nervine, antispasmodic.
Dose, 1 oz. in a pint of hot water.
Infusion, 1 oz. in a pint of hot water.
Dose, a wineglassful.

ALLAIRE,
WOODWARD & CO.,

MANUFACTURERS OF

Fluid & Solid
Extracts,

GELATINE AND SUGAR-
COATED PILLS,

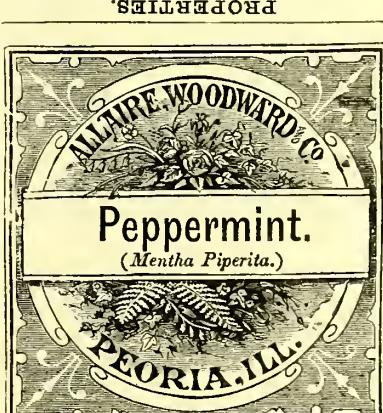
Pure Ground, Powdered, & Pressed
Botanic Goods,

PEORIA, ILLINOIS, U.S.A.

These Goods may be obtained from

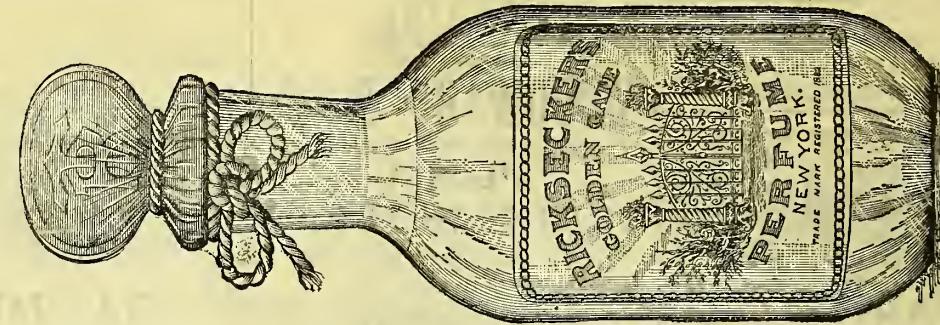
BASTIN, MCGREGOR & CO., Manchester, England.
A. J. WATT & CO., Sydney, N.S.W., Australia.
W. H. H. LANE, Melbourne, Victoria, Australia.
HEMMONS, LAWS & CO., Melbourne.
A. COLE, Sydney, N.S.W.
SIMS & PARKES, Sydney, N.S.W.

COMMON NAMES.
Motherwort, Cardiaca.
Herzogenkraut.
Agricaria.



COMMON NAMES.
Peppermint.
Pfefferminze.
Menthe poivrée.

* A. Perfume. Beyond Compare *



Certainly the Newest,
the most Stylish and the
Finest Combination of
costly Exotics. Of rare
Permanency and most
excellent sale. * :: *
* The best value;
a liberal two ounces;
Gold only in this new
bottle with trial vial
to each free in neat
couplet boxes; A. kit
of Gold Leaf in each
bottle. * :: * *

32s. Dozen.
London Agency—LYNCH & CO., 192 Aldersgate St.

AMERICAN TRUSSES.



Under Patronage of the United States Government.

ESTABLISHED 1850.

Awarded Two Premiums at Centennial Exhibition, Philadelphia, 1876.



The Improved Patent "CHAMPION" TRUSS is the most practical Truss made, and the most popular with dealers generally who have fitted and sold them.

MANUFACTURED FOR

**U.S. ARMY, NAVY,
AND
PENSION DEPARTMENTS.**

ALSO

**U.S. MARINE HOSPITAL
SERVICE.**

THE PHILADELPHIA

Inventors and Sole Manufacturers of the

IMPROVED PATENT CHAMPION "TRUSS"

(Patented September 21, 1875, and September 21, 1880.)

Also Manufacturers of the Adjustable Abdominal Supporter (the best in use), Spring and Elastic Trusses, Abdominal Supporters, Elastic Stockings, Belts, Shoulder Braces, and Suspensory Bandages.



Genuine bear our Firm Name
Dates of Patents, and our
Trade Mark, "Champion," on
plate of each Truss.

Our line of genuine Hard Rubber
Trusses, &c., is the most complete in the
trade and our prices the lowest.

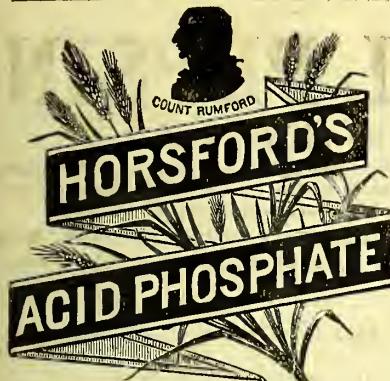
With the largest factory and facilities
in America, if not in the world, exclusively
for our full line of goods, we
respectfully and confidently solicit
orders and correspondence from all
quarters of the globe.

TRUSS CO.,

Office & Factory: 610 Locust Street, PHILADELPHIA, Pa., U.S.A.

Depots in Canada: LYMAN, SONS & CO., Montreal; LYMAN BROTHERS & CO., Toronto, Ontario.

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RECOMMENDED

BY

PHYSICIANS

OF ALL

SCHOOLS

For Dyspepsia, Mental and Physical Exhaustion, Nervousness, Wakefulness, Diminished Vitality, &c.

(LIQUID.)
Prepared according to the directions of Professor
E. N. Horsford, of Cambridge.

**As food for an Exhausted Brain,
In Liver and Kidney Trouble,
In Sea-sickness, Wakefulness, and Sick Headache,
In Dyspepsia, Indigestion, and Constipation,
In Inebriety, Despondency, and Cases of
Impaired Nerve Function,**

IT HAS BECOME A NECESSITY IN A LARGE NUMBER OF HOUSEHOLDS THROUGHOUT THE WORLD.
And is universally prescribed and recommended by Physicians of all schools. It is not nauseous, but agreeable to the taste. No danger can attend its use. Its action will harmonise with such stimulants as are necessary to take.

IT MAKES A DELICIOUS DRINK WITH WATER AND SUGAR ONLY.

Prices reasonable. Pamphlet giving further particulars mailed free. Manufactured by the

RUMFORD CHEMICAL WORKS, PROVIDENCE, R.I., U.S.A.

PROF. HORSFORD'S BAKING PREPARATIONS

Are made of Horsford's famous Cream Tartar Substitute, an acid phosphate in powdered form, of same strength and appearance as Cream Tartar. This Substitute restores to the flour the nutritive phosphates which are removed with the bran in the process of bolting, and its use is positively beneficial to health.

CABLE ADDRESS, "RUMFORD, PROVIDENCE."

WHOLESALE AGENTS—Francis Newbery & Sons, 1 King Edward Street, Newgate Street; Barclay & Sons, 95 Farringdon Street, LONDON, E.C., ENGLAND.

Physicians who have not used Horsford's Acid Phosphate, and who wish to test it, will be furnished a sample and pamphlet on application to either of the above agents; and sample will be furnished free of charge, except the expense of packing and postage (fourpence), which amount should accompany the application.

HENRY TROEMNER,

710 Market Street, Philadelphia, U.S.A.

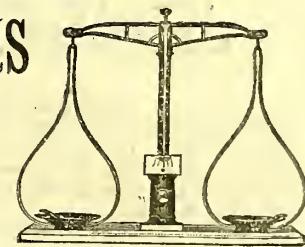
MANUFACTURER OF

Fine Scales & Weights

Druggists' Prescription Scales, Analytical and
Assay Balances.

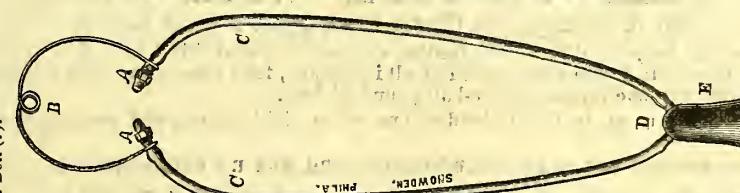
Illustrated Price List on application.

Sold by S. MAW, SON & THOMPSON, London;
ROCKE, TOMPSITT & Co., Melbourne.



SNOWDEN'S "PERFECTED" BINAURAL STETHOSCOPE.

Please note "caution" as inferior imitations have made their appearance. CAUTION. All genuine ones have "WM. SNOWDEN" stamped on the Soft Rubber Cup (P.).



This instrument is well
known throughout the
United States and
Europe, Canada,
Mexico, South America,
Australia, and
Japan.

WILLIAM SNOWDEN, Manufacturer and Importer of SURGICAL INSTRUMENTS and APPLIANCES,

No. 7 SOUTH ELEVENTH STREET, PHILADELPHIA.

Established 1821. The Oldest Surgical Instrument Manufactory and Importing House in the United States.

PRICE OF STETHOSCOPE, SENT BY MAIL ON RECEIPT OF PRICE.

Snowden's "Perfected" Atomiser, No. 1, for the Throat

" " " No. 2, " Nose" Used in Philadelphia by Professors Gross, Pancoast, La Costa, Drs. Lewis, Sajons, Seiler.

" " " No. 3, " Ear"

SURGEONS' PURE IRON-DYED SILK, as used and recommended by Professors Gross and Pancoast, and other leading surgeons. A sample card of 14 sizes sent gratis to any address.

European Orders for Silk will receive Prompt Attention if addressed to "ARTEMORBI," Bern, Switzerland.

JENSEN'S CRYSTAL PEPSIN

In Artificial Crystals. Perfectly Soluble in Water without Acid.

THIS PEPSIN, now so popular with the profession, has given an impetus to the consumption of this drug. Physicians of the highest standing, who before the introduction of this active Pepsin, with good reason, entirely abandoned the use of Pepsin, are now the most eager in prescribing JENSEN'S CRYSTAL PEPSIN, whenever it is indicated.

Three grains of this PEPSIN, which, according to its authoritatively tested strength, will dissolve the hard-boiled white of six eggs, equal to the pure food of a hearty meal. Price, 8s. per ounce.

EDS. MED. & SURG. REPORTER:—

I have this day tested a specimen of Dr. Jensen's so-called "Crystal Pepsin," with the following results, which may be of interest to your readers:

Experiment 1.—One quarter of a grain of Jensen's Pepsin dissolved in f. 3 iss. of water mixed with f. 5 ij. of water containing 9 drops of hydrochloric acid, and kept at a heat varying from 100° to 110° F., dissolved 125 grains of hard-boiled white of egg in two hours.

Experiment 2 was an exact copy of the first, except that solution was effected in two and a quarter hours.

Experiment 3.—One-quarter of a grain of the same Pepsin, under like conditions, dissolved 150 grains, or 600 times its weight, of coagulated albumen, in about three hours—this amount of albumen being rather more than half that usually found in an egg of average size.

JOS. G. RICHARDSON,

M.D., Prof. of Hygiene in the University of Pennsylvania.

Philadelphia, May 16, 1883.

Jensen's Pepsin in Diphtheria.

Dr. Edwin Rosenthal, acting on the suggestion of Dr. L. Wolff, has used an acidulated concentrated solution of Pepsin, as an application to the membranes of diphtheritic patients, for which there seemed to be no other help than tracheotomy, and reports that it acted like a charm, dissolving the membranes, admitting a free aeration of the blood, and placing them soon on the road to convalescence. The solution he used was—

R.	Jensen's Pepsin	...	...	...	...	3j.
	Acidi hydrochloric, C. P.	...	...	gtt.	xx.	
	Aqua q. s. ft....	...	...	...	fl 3 j.	

M. S. Apply copiously every hour with a throat mop.—*From the Med. Bulletin, Philadelphia.*

Dr. Jensen's Pepsin as a Solvent in Albuminous Obstruction of the Bladder.

Dr. Hollmann, [Nederl. Weekbl., 18, p. 272] reports the case of an old man aged 80, suffering from retention of urine, in whom the introduction of a catheter failed to produce the desired result. It was found that the bladder contained coagulated albuminoid masses mixed with blood. A few hours after the injection of about sixteen grains of Dr. Jensen's Pepsin, dissolved in water, a large amount of a dark, viscid fetid fluid readily escaped by the catheter.—*Lond. Med. Record.*

JENSEN'S BEEF PEPTONE,

In Transparent Glassy Scales.

One ounce represents one pound of beef, less fat and a small portion of earthy matter, which precipitates after the process of digestion is entirely completed, thus presenting a true and highly azotized nutrient in the most concentrated form possible. This is the first Beef Peptone ever offered to the profession in a strictly completed and unmixed state, and will stand the most severely scientific test as to perfectness. For rectal as well as oral administration it offers to medicine a new agent by which to overcome asthenic inanition, and thus combat one of the worst features of acute as well as chronic diseases.

JENSEN'S BEEF PEPTONE WITH ROCK CANDY.

Also in Transparent Glassy Scales, but a trifle Larger.

Devised to overcome the long-felt difficulty in feeding sick children who object to food in any hitherto known form, but never refuse candy. They will, to the gratification of all interested, feed themselves with this sweet Peptone, and ask for more. One ounce of this Peptone represents one-half pound of beef.

Both of these Peptones are put up in bottles holding one ounce, eight ounces, and one pound, retailed at 2s. 6d. per ounce.

The above preparations are only manufactured and put up exclusively as specialties by

DR. CARL L. JENSEN,

865 NORTH 26th STREET, PHILADELPHIA, PA.

Exclusive Agents—GABRIEL & TROKE, Wholesale Druggists, 82 City Road, LONDON.

Sold by F. NEWBERRY & SONS, 1 King Edward Street, Newgate Street, LONDON.

FREDERICK STEARNS & CO.,

Manufacturing Pharmacists,
DETROIT, MICHIGAN, U.S.A.

Exporters of Medicinal Products.

Established 28 Years.

POPULAR NON-SECRET MEDICINES.

Under the title of Popular Non-Secret Medicines, we introduced, in 1876, a line of articles avowedly made to supplant patented and secret medicines. The list comprises staple articles like Sarsaparilla, Condition Powders, Cathartic Pills, Liniments, Cough Syrups, Worm Medicines, &c., to simulate the forms and sizes of like popular patented goods; to print the working formula on each package; to make them in large quantities, at a saving in cost of material and labour; to sell them to the RETAIL trade of the United States; to print each buyer's name and address on labels and wrappers in place of ours; to sell them on a close margin of profit as manufacturers; to use good glass, velvet corks, excellent printing, elegant engraved and tinted wrappers; to adapt the styles, sizes, and prices to meet popular wants; to furnish the retail druggist (who has few appliances himself) a means to drive patent medicines out of his sales; to enable him to make the profits himself, which otherwise go into the pockets of patent medicine manufacturers; to replace quack and secret nostrums by medicines of known composition and value.

Illustrated Priced Catalogue and Order Blanks furnished on application of any retail druggist in good rating.
Each One meres protected from competition in his immediate neighbourhood.



This cut represents the
12-oz. size of

Compound Syrup of Sarsaparilla with Iodide of Potassium.

The medicines combined in this preparation have long been recognised by the medical profession as the most certain of alteratives and depuratives. It is useful in chronic affections of the skin, scrofula, syphilis, and all diseases arising from impurities of the blood. It contains Sarsaparilla, Senna, Licorice, Iodide of Potassium, Sassafras, Anise and Oil of Wintergreen. Formula printed on label (or not, as buyers wish). Price from one-half to two-thirds less than Patented Nostrums. The general make-up is elegant and far surpasses any hitherto put before the public.

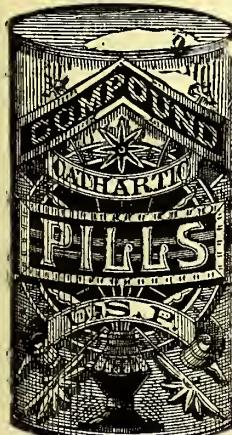
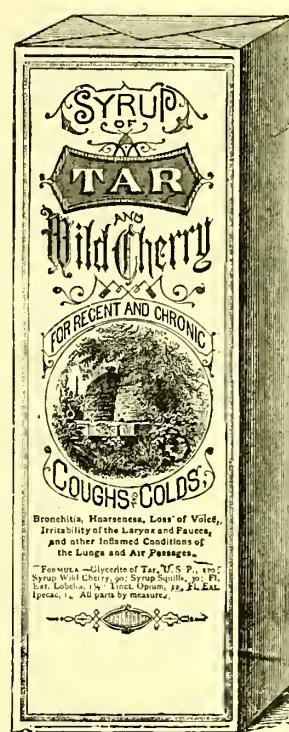
This cut shows the popular
non-secret

Syrup of Tar and Wild Cherry.

For recent or chronic Coughs and Colds, Bronchitis, Hoarseness, Loss of Voice, Irritability of the Larynx and Fauces, and other Inflamed Conditions of the Lungs and Air Passages.

PROPERTIES.—It is agreeable in taste and appearance, and Tar is diuretic and promotes secretion in the bronchial and laryngeal passages; Wild Cherry is an elegant and agreeable tonic and sedative; Squill, one of the best of expectorants; Ipecac is diaphoretic and expectorant; Opium, sedative.

STYLE AND SIZE.—Put up in three sizes, to retail for One, Two, and Four Shillings; label and buyer's address on bottle; cork left long; handsome engraved wrapper printed on heavy salmon-tinted enameled paper; a two-page circular enclosed.



This cut represents a turned-wood box, containing 25 Sugar (or gelatine) Coated Cathartic Pills (formula, U. S. Ph.); engraved wrapper, with customers' address (not ours); each one quarter, one half, or one gross of boxes packed in Decorated Canisters. Price of the goods from one-half to two-thirds less than those of Patent or Quack Pills. Any "formula," any "Title," and any Address may be had in this form.

We put up but *one quality*, and that the *full weight* of the Pharmacopœia. We make our own Tin and Slide Paper Boxes. Our **BLUE** papers are die in the rag, and will not fade or stain. The **ACIDS** are wrapped in foil. Wrappers are of elegant, variously-tinted enameled papers, engraved designs, and with buyer's address.

Directions and Uses in English, French, German, and Spanish.

ACCURATE WEIGHT.—We have for some time discarded the method of *measuring* the seidlitz mixture and acid in putting up Seidlitz Powders, and in place of that we weigh *every single powder*, and would like to have our customers test this fact, and then weigh several of the machine-weighted powders, or those put up with measuring cups, and report the result. Ours are *exactly correct*; made by any other way they cannot be. These are to be had in Boxes of 12, 10, 8, and 6 Powders; also in Decorated Foil Envelopes of 1, 2, or 3 Powders.

Genuine Seidlitz Powders.



Single Powders in Decorated Foil, Boxes of 50 or 100 only.

We publish monthly an 8-page illustrated paper, "THE NEW IDEA." Send for it. Contains articles of interest to every retail druggist—the organ of the house—and is devoted to New Remedies, New Preparations, and Novelties in Pharmacy.

ADVERTISING MEANS.—We furnish Counter Circulars, Almanacs, Memorandum Books, Cook Books, Canary Bird Books (new), "Our Dogs" (new) and some other desirable means for counter advertising. These are furnished at cost to customers of our Non-Secret Remedies, AND ADVERTISE THE BUSINESS EXCLUSIVELY.

NEW CATALOGUE. No. 80, issued April 1880, contains 72 pages, closely printed, of our manufactures (exclusive of the popular Non-Secret Preparations), as Fluid Extracts, Sugar Coated Pills, Elixirs, Powdered Drugs, Effervescent Granules, &c., &c. A book of reference. To customers free.

NEW CATALOGUE. No. 82.—Illustrated Descriptive Price List of the popular Non-Secret Medicines, Toilet and Domestic Articles. It contains 90 pages, and nearly 150 engravings. Free on application.

Printed Card or Address should be sent with every Order. Send for Order Blanks.

FREDERICK STEARNS & CO., Manufacturing Pharmacists, DETROIT, MICH.

LICORICE.

Our Licorice is made in the most careful and scientific manner from sound Italian and Spanish Root, is handsome in appearance, of finest flavour, beautiful fracture, and entirely free from grittiness. The sizes are 4, 6, 8, 12, 14, and 16 sticks to the lb. (all sizes same price per lb.), put up in 5-lb. wooden boxes, actual weight guaranteed. Samples and Prices upon application. CORRESPONDENCE WITH JOBBING HOUSES SOLICITED.

We have received the following Awards:
Franklin Institute, Philadelphia, Exhibition of 1874, "for purity"; Centennial Exhibition, Philadelphia, 1876, "for purity and general excellence of manufacture"; Paris Exposition, 1878, "for general excellence."

MELLOR & RITTENHOUSE
MANUFACTURERS OF LICORICE,
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SOFT AND HARD. (9 SIZES.) ALL KINDS FILLED.

EMPTY (8 Sizes) For taking medicine free of taste, smell, injury to teeth, mouth, or throat. Boxes, 100 each, 1 dol.

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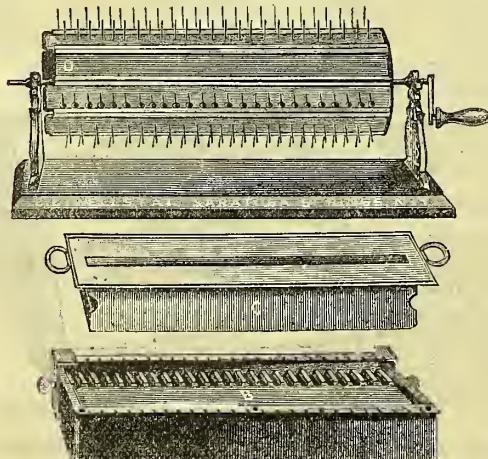
Special Recipes Capsuled. New kinds constantly added.

 Sold by all Druggists. SAMPLES FREE.

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"THE PORCUPINE" PILL-COATING MACHINE

Patented by **CHARLES C. WELLS**, Saratoga Springs,
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A.—Needle Bars.
B.—Solution Holder and Water Bath.
C.—Pick Up and Take Off.
D.—Drying Cylinder.

For particulars read Advertisement in July number of THE CHEMIST AND DRUGGIST, page 101.

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MORRISON, PLUMMER & CO.,

Importers and Wholesale Druggists,

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DRUGGISTS make 140 per cent. profit acting as agents for and selling REGISTER'S LINIMENT. The best in the world. Write for particulars to F. REGISTER, Prop'r, 324 5th St., Phila., Pa., U.S.A. A reliable druggist wanted in each town.

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A full line of Druggist Goods to retail at SIX-PENCE.

We are also the Sole Makers of the famous Brand of **R. B. CUBEB CIGARETTES** that has had such an immense sale in America for the past four years.

For Sale in London by **S. MAW, SON & THOMPSON.**

We make six different Brands of Medicated Cigarettes all to retail at six-pence.

INDEX TO ADVERTISEMENTS,

See pp. 39 and 40.

HIMROD'S CURE

FOR

ASTHMA,

HAY FEVER, CROUP, CATARRH, DIPHTHERIA & COLDS.

The attention of sufferers from Spasmodic Asthma is directed to the following
Extracts from some of the Press Memoirs of the late lamented

EARL OF BEACONSFIELD.

"An account states that the early hours of the morning had always been the most trying to the patient, and after one o'clock the difficulty of relieving the throat and chest became so great that recourse was had to an expedient which Lord Beaconsfield had before declared had given him the *greatest relief*, and a small quantity of Himrod's Powder was burned in a saucer in such a position that the fumes were inhaled by the sufferer."—*The "Daily News," London, Wednesday, April 20th, 1881.*

"The east winds, which have again set in, no doubt hastened the end. It seems that for the asthmatic affection his lordship derived the greatest comfort from Himrod's Powder, which was recommended to him by Sir Philip Rose. He last inhaled it at one o'clock this morning, and seemed to derive comfort from it. Nothing could be more dignified than the manner in which the noble patient bore his sufferings, and nothing more composed and tranquil than his end."—*The "Globe," London, Tuesday, April 19th, 1881.*

It is important to observe that Himrod's Cure was employed under the highest medical sanction, for the "Globe" (above quoted) further states—

".... Indeed, latterly, since his illness assumed a critical turn, he had submitted himself to the guidance of his physicians and friends, eating when he was more or less inclined to do so, and obeying the medical directions. From the very first he has been wonderfully patient and in good spirits, although conscious he could never recover, and"

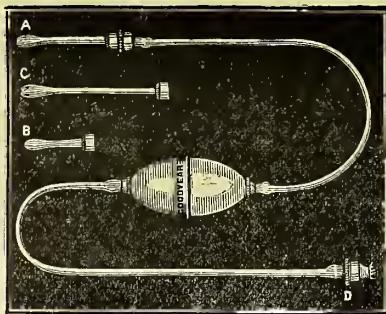
"From the very first he has been wonderfully patient, and in good spirits, although conscious he could never recover, whilst awaiting his death with marked fortitude. It is understood he said the only real relief he had during the paroxysms of his illness was from an American remedy (Himrod's Powder), which was freely administered during his illness, being the last medicine given him."—*The "Echo," Tuesday, April 19th, 1881.*

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LONDON	F. NEWBERY & SONS.
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OR FROM

HIMROD MANUFACTURING CO., SOLE PROPRIETORS.
NEW YORK, U.S.A.

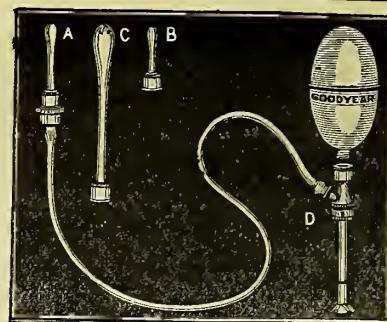


No. 5.

Its superior quality makes it the most desirable of all medium-priced Syringes.

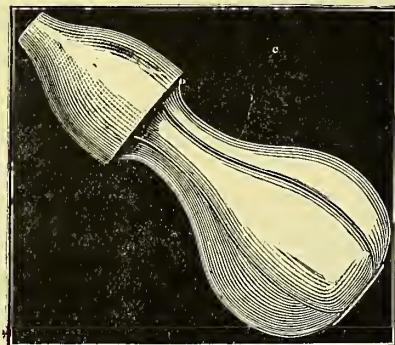
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A first-class medium, with
Bulb detachable.
Polished Wood Cases.



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SOLE AGENTS FOR GREAT BRITAIN.

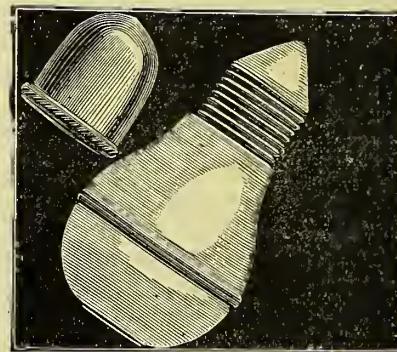


"LADIES."

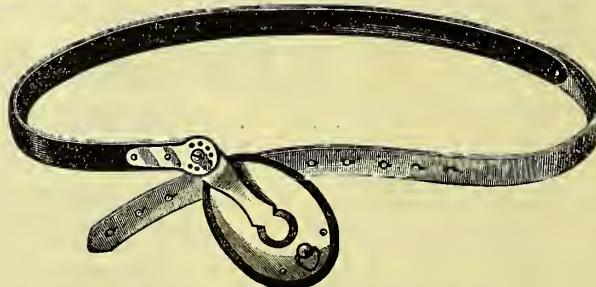
Is the simplest and most perfect Vaginal Syringe in the market.

"P.P.P."

A Soft Rubber Urethral Syringe; very useful, as the Solution can be carried safely in the pocket.



THE
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A FINE STEEL SPRING covered with the BEAUTIFUL CELLULOID, PADS of same material.
LIGHT, COOL, AND COMFORTABLE.

Will not rust or wear out. Well suited to warm climates.

ADOPTED BY U. S. SURGEON-GENERAL'S OFFICE.

MADE IN A VARIETY OF PATTERNS.

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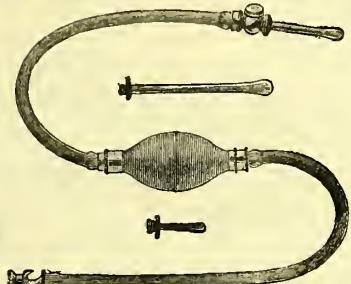
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DAVIDSON SYRINGES

Nos. 1 and 2,

PURE BLOCK TIN
PIPES.



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PIPES.

UNIVERSALLY ACKNOWLEDGED TO BE THE MOST PERFECT ENEMAS MADE.

A PERFECT INSTRUMENT that can always be relied upon is the CHEAPEST.

With the DAVIDSON Syringes, absolute perfection in the purity of stock, and skill of construction, are the objects aimed for, so that by their great durability they are much cheaper to use than any others.

WE COMPETE ON QUALITY ONLY.

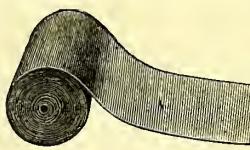
The trade never have any bad stock of DAVIDSON Syringes, which is so often the case with the cheap, worthless Syringes, such as rubber growing hard, pipes corroding, valves useless, &c., &c., and during the 25 years that we have made them, we do not recall a single complaint of their quality. The quality is specially desirable in countries where they have not the means of repairing, or where the climate effects the cheap adulterated rubber goods.

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DAVIDSON'S
60 FEET



DAVIDSON RUBBER CO.

BANDAGES.
LONG.

The advantages in these Bandages will at once suggest themselves to Physicians and Druggists.

They are made 60 feet long in four widths (1½, 2, 2½, and 3 inches), so that any length or width desired can be cut off, and it relieves the Druggists from the necessity of carrying in stock a line of Bandages of various lengths.

Many objections are found with Bandages that are made with tapes on the end, as the tapes, being non-elastic, bind the limb so rigidly as to stop or impede the circulation.

With Davidson Bandages these objections are entirely removed, as they are secured in place by using diaper or safety pins, so that no part of the limb is bound by non-elastic material.

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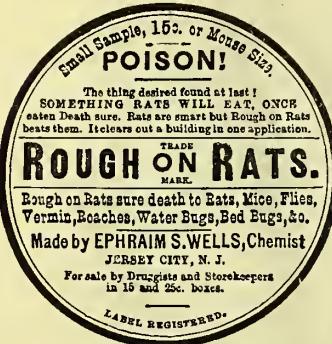
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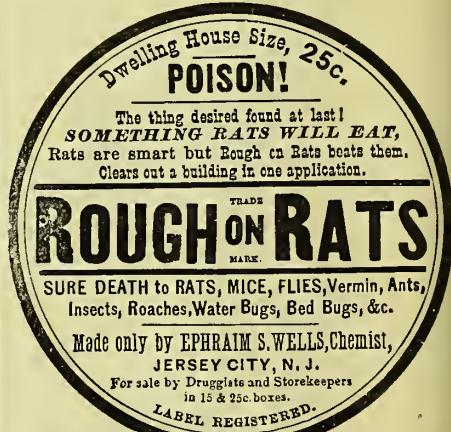


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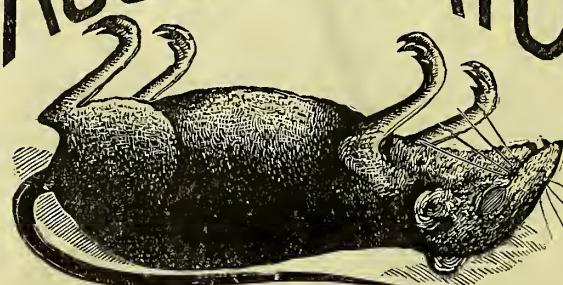
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Always does the work.

Lowest price of its kind.

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**CAREFUL
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Who do not sell arsenic and strychnine indiscriminately, and yet do not wish to incur displeasure of Patrons by absolute refusal, can offer

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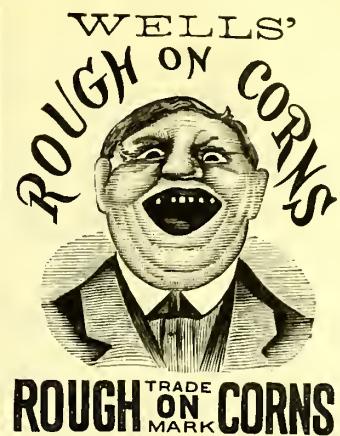
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1s. " 6s. 5d. "

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PAY A BETTER PROFIT

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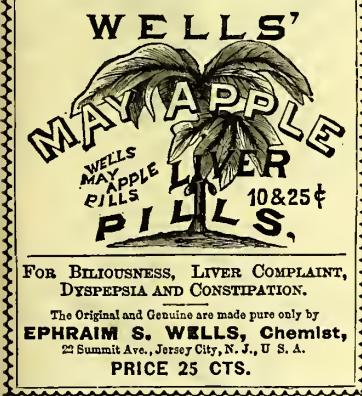
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1s. " 5s. "

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EFFECTIVE, HARMLESS.
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PETROLEUM were

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2/8..	Ditto ditto ..24/	4/6..	" Raquin ..30/	11..	Laville's Gout Tincture ..90/	2/9..	Sirop ..27/
2/8..	Aubergier's Syrup ..27/	4/6..	Mathey Caylus ..28/	11..	Pills ..90/	4/0..	Racahout ..80/6
1/9..	Pâté ..16/	4/6..	Chassaigne's Wine ..38/6	2/8..	Papier Fayard ..13/6	4/6..	Reynal's Bougies ..42/
6/6..	Bay Rum ..54/	2/9..	Pills ..24/6	1/14	Ditto ..7/	2/9..	Ricord's Injection ..24/
8/6..	Ditto ..27/	4/6..	Olin's Bromide Cam. Drâgées 45/	4/..	Papier Fruneau ..27/	4/6..	Capsules ..38/
2/9..	Bellco's Charcoal ..14/	5/0..	Eau Botot ..38/	2/8..	Ditto ..15/	8/0..	Syrup ..72/; 2/9; 26/
1/9..	Lozenges ..18/	2/0..	Ditto ..24/	1/9..	Pâté Aubergier ..14/6	1/6..	Star Paper ..12/
4/6..	Blancard's Pills ..30/	2/8..	Espic's Cigarettes ..14/	2/0..	" de Berth. ..16/	2/9..	Vallet's Pills ..22/
2/6..	Ditto ..18/	5/6..	Elixir de Coca ..48/	2/9..	" de Coca ..23/	1/9..	Ditto ..14/6
4/6..	Brou's Injection ..27/	2/9..	Flou's Syrup ..23/	1/9..	" de Georges ..18/	4/6..	Veloutine (White, Pink, Yel.) ..89/
4/6..	Bugeaud's Wine ..35/	2/0..	Gayett's Paper ..16/	1/14	Ditto ..8/6	3/6..	Ditto ..80/
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2/6..	Ditto ..15/6..	2/8..	" Iron ..15/	1/9..	Regnault ..13/	4/6..	Valentine's Meat Juice ..38/
4/6..	Candé's (Lait Antéphilique) 36/	2/8..	" Soda ..15/	7/0..	Pierlot's Valerian ..60/	4/6..	Vin de Coca Mariani ..44/6
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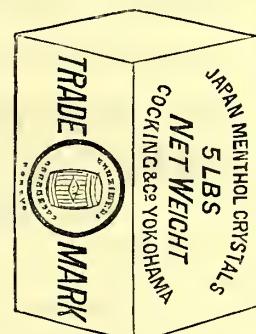
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1868.**COCKING'S**JAPAN OIL OF
PEPPERMINTAND MENTHOL
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1868.

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The undersigned are the original and sole distillers of the above well-known goods in Japan. Our brand is a guarantee of absolute purity. Send for circulars. See also testimonials and reports of the trade journals.

The Oil is packed in 1-lb. and $\frac{1}{2}$ -lb. bottles. The Menthol is packed in 5-lb. and 1-lb. tins, 1-lb. and $\frac{1}{2}$ -lb. $\frac{1}{2}$ -catty and $\frac{1}{4}$ -catty bottles.

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GENUINE THIBET MUSK.

"PHÖENIX" SEASON
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Guaranteed Pure by
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The Viceroy's Chemists,
SIMLA (HIMALAYAS).

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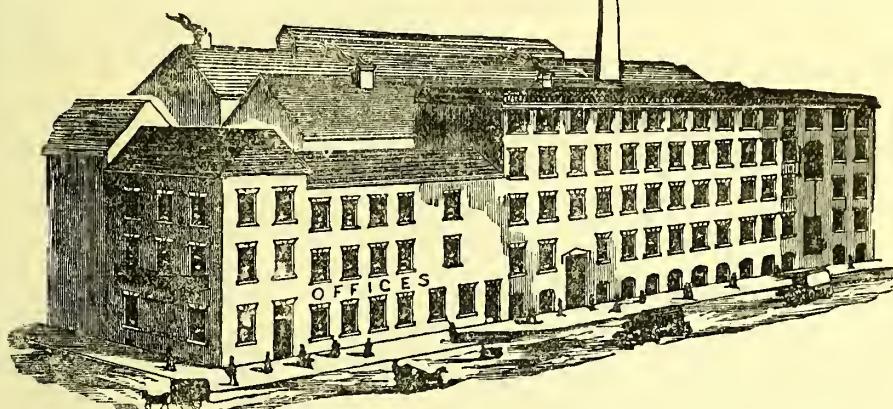
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To Messrs. Bleasdale & Co., Chemists, York. THOS. CROSS.

The Editor of the "WHARFFDALE AND AIREDALE OBSERVER" sends the following unsolicited:—

Gentlemen.—Your "Tikheel" is indeed a most remarkable medicine. I am not one who places much faith in the efficacy of the numerous so-called remedies for Neuralgia, and I was therefore not very sanguine of getting relief from your "Tikheel," but having suffered severely for several weeks past from Neuralgia, I was induced to make a trial of the medicine. In a quarter of an hour after taking the first dose the excruciating pain abated and I have had no return of it since. I am certain this medicine only requires to be generally known in order to be widely used and appreciated.

From Mr. Councillor RAWLING, York.

5 Swingate, York, July 17, 1882.

Gentlemen.—I have great pleasure in giving testimony to the great benefit to be derived from your "Tikheel." I was very bad with Tic, but a dose of "Tikheel" cured me in half-an-hour. I cannot speak too highly of it.—Yours truly, FRANCIS RAWLING (Town Councillor).

From Mr. CHAS. HAIGH, Skip Maker, Buresfield.

Gentlemen.—My wife having been a very great sufferer for some time from Tic and Neuralgia, and having tried a good many medicines without receiving any benefit, was induced by Mr. Byatt, Chemist, to try a bottle of "Tikheel." Strange to say, after taking three doses of the medicine she was completely cured, and has not had the least pain since.

You are at liberty to make any use of this testimonial you think proper, as I think every one should know there is such a certain and rapid cure for Neuralgia.

From Mr. THOS. HORROCKS, Temperance Lecturer, Darwen.

10 Melita Terrace, Darwen, February 1, 1883.

Gentlemen.—My daughter has been troubled very much with Neuralgia for the last six months, and having seen your advertisement in the paper, I purchased a bottle of your "Tikheel." I am glad to say the first dose gave her immediate relief, and after taking one small bottle, she was completely cured, and has not had an attack since.—Believe me, Gentlemen, yours gratefully,

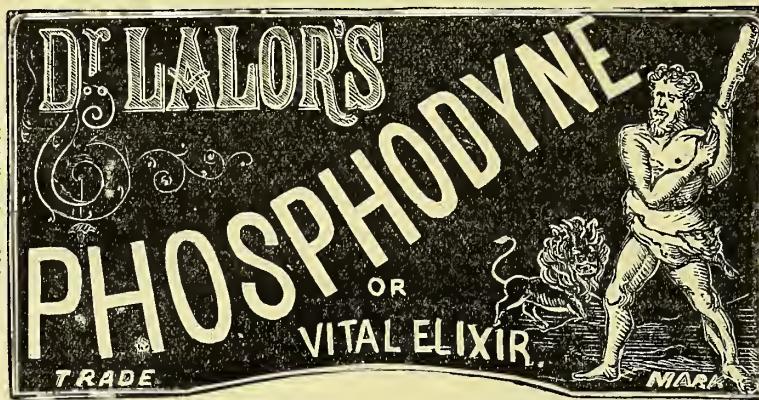
THOS. HORROCKS, Temperance Lecturer,

Western Temperance League.

Messrs. Clarke, Bleasdale, Bell & Co., York.

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DR. LALOR'S PHOSPHODYNE, PILLS & OINTMENT,

UNDER DISTINGUISHED PATRONAGE.
 Every Bottle of the GENUINE PHOSPHODYNE
 bears this
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**SOLE PATENTEE OF
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 CUBEB
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 Relief in Asthma, Throat
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 A Specific against
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 Full Directions.
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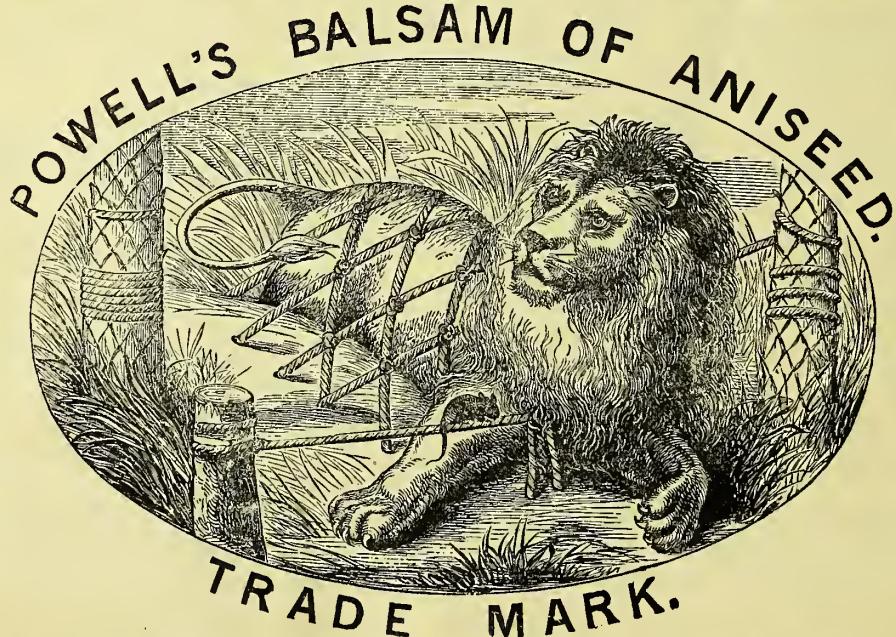
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Prime Quality and Guaranteed from Soda.

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Peruvian Mixture Capsules	12/- & 9/-	8/- & 2/-
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By "BATTLEY'S PROCESS,"
Guaranteed precisely as made in the laboratory, and under the superintendence of the late Richard Battle.
Can be procured from the principal Patent Medicine Dealers and Wholesale Druggists, or at

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GOLD MEDAL, FOREIGN EXHIBITION, BOSTON, 1883.

SIR JAMES MURRAY'S PURE FLUID MAGNESIA.

The ORIGINAL Article, as prepared by the Inventor, Sir James Murray, M.D.

For over 60 years in use as an excellent remedy in cases of
ACIDITY, INDIGESTION, HEARTBURN, GRAVEL, AND GOUT.

Sold by all respectable Chemists, in LARGE-SIZED Bottles (the 1s. size containing nearly
Double the quantity usually sold at that price), at **1/**, **2/6**, and **3/6** each.

CAUTION.—Observe that the Signature of the Inventor is on every label.

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Is a valuable remedy in cases of SLEEPLESSNESS and WEAK NERVES. Bottles, **1/** and **2/** each.

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CHRISTIANI & CO.'S FLEXIBLE MEDICINE CAPSULES.

THE BEST TASTELESS MEDIUM TO TAKE NAUSEOUS MEDICINE.

They are made in Six Sizes:—
No. 1 contains about 12 drops (8 min.)
" 2 " " 25 " (18 ")
" 3 " " 40 " (25 ")
" 4 " " 50 " (35 ")
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" 6 " " 80 " (65 ")
60 drops equal to about one teaspoonful.

THE GREAT ADVANTAGES OF CHRISTIANI'S CAPSULES ARE—

That they are PERFECTLY FLEXIBLE, and therefore readily accommodate themselves to the smallest throat. That they are PLEASANTLY FLAVOURED and PALATABLE alike to adults and children. That they are PERFECTLY SOLUBLE, and have no DELETERIOUS influence on the stomach. That a MUCH LARGER QUANTITY of Castor Oil, Cod-liver Oil, or other nauseous medicine can be taken in ONE CAPSULE AT A TIME than can be done by the use of any other capsules sold. A Capsule No. 6 can be swallowed with great ease, the flexibility being extraordinary. Especially recommended for taking COL-LIVER and CASTOR OIL, Santal Oil, Balsam Copaiaba, Turpentine, Quinine, Charcoal, &c.

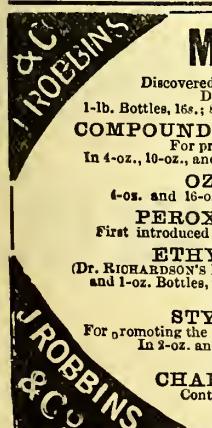
Capsules filled with any Oil according to instructions.

EMULSIO SANTALI ALKALINA. (P. N. TAYLOR.)

It is found that this new remedy in this partially digested form is more easily assimilated and no nauseating effect produced on the most delicate stomach. They impart absolutely no taste in the mouth or odour to the breath after being taken, an advantage possessed by no other capsule made.

Though containing water the capsule is perfectly soluble.

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DINNEFORD'S FLUID MAGNESIA.



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HOGE'S HOREHOUND HONEY

"I consider your Horehound Honey the most wonderful remedy I have ever tried, possessing properties which are nothing short of marvellous for cure of sore throat and coughs.

"MARIE RÔZE."

"Your Honey is delicious.—Yours truly, ELLEN TERRY."

WHAT IT IS.

An uncompounded product of Nature secreted in the petals of horehound blossoms, and gathered by the honey bee.

IN the soft and equable climate of Southern California the mountain slopes, as they descend towards the Pacific Ocean, are often found to be one perpetual carpet of Horehound Flowers from spring until autumn. This plant blooms after nearly everything else has faded. It stands excessive droughts, and yields a profusion of flowers almost unequalled in the vegetable kingdom, which are reservoirs that yield this most wonderful remedy. These miniature laboratories stamp with faultless certainty this Horehound Honey with a colour and flavour peculiar to itself, and can be as easily distinguished as heather and clover honey can. It is tonic, stimulant, and laxative, affording speedy relief for Coughs, Colds, Consumption, &c. Hoge's Horehound Honey cannot be honestly imitated.

We guarantee Hoge's Horehound Honey to sell. If you are not satisfied with it after stocking it, we will refund price paid us on its return to us.

Interesting Descriptive Pamphlets, profusely illustrated, showing the Method of Keeping Bees in California, also Hand Bills, supplied to customers gratis.

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Dr. J. COLLIS BROWNE'S CHLORODYNE.

THE ORIGINAL AND ONLY GENUINE.

IMPORTANT CAUTIONS

From Lord Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD,
and the LORDS JUSTICES OF APPEAL.

VICE-CHANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that Dr. J. Collis Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman was as deliberately untrue as the falsehood he had deposited to with reference to the use of his Chlorodyne in the Hospital.

The VICE-CHANCELLOR also stated, 'that Chlorodyne was a fanciful name, and had application been made sooner, the Court would have given Dr. Browne protection.'

LORD CHANCELLOR SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated 'that had application been made at a proper time and place, the Court would have found means to restrain the Defendant from misrepresenting the decision of the Vice-Chancellor.'

LORD JUSTICE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misrepresentation of the decision of Vice-Chancellor Wood.'

It was proved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the *Times*, November 14th, 1865, speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she never used any other, that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant publishes the said testimonial as referring to his medicine.

The Editor of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne referred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published by the Defendant as testimony to his medicine.

Numerous affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. Collis Browne was the inventor of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is in effect and composition quite different to any other preparation; nevertheless he assumes the name, testimonials, &c., of Chlorodyne.

Technicalities in law prevent that protection which the public should justly have against such a course of conduct. It is now incumbent on all who purchase Chlorodyne to see that the name, 'Dr. J. Collis Browne's Chlorodyne,' is engraved on the Government Stamp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts at analysis have failed; hence the statement that the constituents of Chlorodyne are known to be a misrepresentation.

ORIGINAL AND

FURTHER IMPORTANT NOTICE.

The subjoined list of eminent Firms concur with Vice-Chancellor Sir W. Page Wood's statement in Court, that Dr. Collis Browne was undoubtedly the Inventor of Chlorodyne; and that when Chlorodyne, or the Original Chlorodyne, is ordered, they invariably supply Dr. J. Collis Browne's:—

Apothecaries' Hall,	London	Frazer & Green,	Glasgow	Morson, T., & Son,	London
Allen, Hanbury & Co.,	„	Gale & Co.,	London	Newberry & Sons,	London
Baiss Brothers,	„	Giles & Son,	Clifton	Oldham, G., & Co.,	Dublin
Banks & Richards,	Birmingham	Goulding, Messrs.	Cork	Parsons & Richardson,	Leicester
Baron, Harvey & Co.,	London	Gratton & Co.,	Belfast	Peake, Allen & Co.,	Dublin
Bell, John, & Co.,	„	Grimwade, Ridley,	London	Raines & Co.,	Liverpool
Bourne & Taylor,	„	Grindley & Son,	Chester	Raines & Co.,	York
Corbyn & Co.,	„	Hearon, Squire & Francis,	London	Raines, Blanshards & Co.,	Edinburgh
Cox & Gould,	„	Hodgkinson, Tonge & Stead,	„	Sang & Barker,	London
Curling & Co.,	„	Hopkins & Williams,	„	Sanger, J., & Sons,	London
Curtis & Co.,	„	Hovenden, R., & Sons,	„	Sim, James, & Co.,	Aberdeen
Davy, M'Murdo & Co.,	„	Hunt & Co.,	Exeter	Smeeton, W.,	Leeds
Dohbin, W., & Co.,	Belfast	Hnnt, A., & Co.,	„	Southall & Co.,	Birmingham
Drew, Barron & Co.,	London	Johnson, J. H. & S.,	Liverpool	Sutton, W., & Co.,	London
Drew, B., & Alexander,	„	Langton, W., & Co.,	London	Tomlinson, Hayward & Co.,	Lincoln
Dunn & Company,	„	Lynch & Co.,	„	Treacher, Hodgkinson & Co.,	„
Edwards, W.,	„	Mander, Weaver,	Wolverhampton	Westrop, J. B.,	Kensington
Evans, Gadd & Co.,	Exeter	Marsden & Sons,	London	Westwood & Hopkins,	Lincoln
Evans, Lescher & Evans,	London	Maw & Son,	„	Woolly, James,	Manchester
Ferris & Co.,	Bristol	Meggeson & Co.,	„	Wyleys & Brown,	Coventry
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After these public statements in a Court of Equity, and subsequent confirmation by the trade at large, no Chemist can conscientiously use or sell any other compound for Chlorodyne without committing a breach of faith, unjust to patient and physician. The value of the remedy alone creates the great demand.

Sold in Bottles—1s. 1½d., 2s. 9d., 4s. 6d., and 11s. Usual Discount to the Profession

SOLE MANUFACTURER,

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A NON-MERCURIAL LIVER MEDICINE, specially useful to the habitually constipated, and safe for all ages.

Special caution needed against injurious imitations. Worthy of trade notice. Reliable, and rapidly increasing in public acceptance.

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THE RED CROSS CAPSULES,

IN BOXES, 1/- EACH,

Are warranted to contain pure Balsam Copaiba, and are made with Flexible Gelatine; also

THE RED CROSS PACKET,

PRICE 4/6,

The greatest cure for Urinary Ailments.

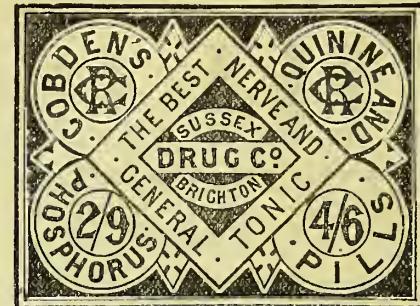
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Proprietors of Dr. Watson's Pulmonine Lozenges, in Boxes, 1½d. each.
PROPRIETARY CAPSULES, of any description, made to order for Druggists or Shippers.

INDEX TO ADVERTISEMENTS,

See pages 39, 40.



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These are universally acknowledged to be the Genuine and Druggists may safely recommend them.

CAUTION!

The proprietors of Kearsley's Original Widow Welch's Female Pills find it incumbent on them to caution the purchasers of these Pills against various imitations by parties who have no knowledge of their peculiar preparation, the Original Recipe having been sold to the late G. Kearsley of Fleet Street, whose Widow found it necessary to make an Affidavit, for the protection of her property, in the year 1798. The Genuine Recipe of Widow Welch's Female Pills has been prepared by them for 96 Years! Chemists are particularly requested to remark that, as testimony of authenticity, each bill of directions contains an Affidavit, and bears the signature of "C. KEARSLEY," in writing, also engraved on the Government Stamp, and each box is wrapped in WHITE paper.

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Supplied with all Orders for One Dozen (13) Boxes,

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on application to

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PRICES 2/6 AND 4/6.

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For British Exhibitors was awarded to

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Price Lists sent on application. Special quotations given for
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A WONDERFUL MEDICINE!

Between thirty and forty years ago a Medicine was introduced to the public, and suffering humanity was invited to try the same.

The Proprietor knew from experience that success was certain, but the human breast is imbued with prejudice, that it forms one of the strongest barriers to break down and the greatest enemy to overcome before any headway can be made towards the mansion of success. Truth has often proved itself to be "stranger than fiction," and it is a fact as solid as truth that



TRADE MARK.
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BEECHAM'S PILLS

have now become one of the leading Patent Medicines of the present day. From north to south, and from east to west, they are to be found in the homes of the rich and the poor. All classes of society use them, and they are by thousands declared to be

WORTH A GUINEA A BOX.

For a Weak Stomach, Impaired Digestion, and all Disorders of the Liver, they act like "MAGIC," and a few doses will be found to work wonders on the most important organs in the human machine. They strengthen the whole muscular system, restore the long-lost complexion, bring back the keen edge of appetite, and arouse into action, with the ROSE-BUD of health, the whole physical energy of the human frame. These are "FACTS" admitted by thousands, embracing all classes of Society, and one of the best guarantees to the Nervous and Debilitated is, BEECHAM'S PILLS have the LARGEST SALE of any Patent Medicine in England.

In South Africa BEECHAM'S PILLS have the largest sale of any Patent Medicine ever introduced into that part of the World.

All Patent Medicine Dealers abroad will find BEECHAM'S PILLS one of the most profitable and one of the best selling articles in the Market. The demand for them is regular, and all Foreign Houses who are desirous of getting a First-class Patent Medicine are respectfully requested to get BEECHAM'S PILLS from the leading Wholesale Houses in England (as no business will be done with any Foreign House by the Proprietor direct).

CAUTION.—The Public are requested to notice that the words "BEECHAM'S PILLS, ST. HELENS," are on the Government Stamp affixed to each Box of the Pills; if not on, they are a Forgery.

Prepared only, and Sold Wholesale and Retail, by the Proprietor,

**THOMAS BEECHAM,
ST. HELENS, LANCASTER, ENGLAND**

In Boxes, 1s. 1½d. and 2s. 9d. each.

N.B.—FULL DIRECTIONS ARE GIVEN WITH EACH BOX

Trade Notice.]



[Trade Notice.

ATKINSON & BARKER'S ROYAL INFANTS' PRESERVATIVE.

Established by 90 years' experience as a safe and effective Medicine.

Sold universally by Chemists and Patent Medicine Dealers.

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"FOR THE BLOOD IS THE LIFE."

CLARKE'S WORLD FAMED BLOOD MIXTURE,

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The Celebrated CURE FOR Scrofula, Scurvy, Blood and Skin Diseases, and Sores of all kinds.

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The Original Preparation, as approved by the Medical Profession
on account of its known composition and uniform strength.Retail at 13½d., 2s. 9d., and 4s. 6d. Dispensing, 4 ozs., 4s. 6d., and 10 ozs. 11s.
stamped.

LIQ. CHLORODYNII.

As originally introduced by A. P. Towle, and free from stamp
duty for dispensing.4 ozs., 4s.; $\frac{1}{2}$ lb., 5s. 6d.; 1 lb., 10s.

TOWLE'S CHLORODYNE LOZENGES AND JUJUBES,

In 1, 2, and 4 lb. Bottles, at 3s. per lb., and 6d. and 1s. Boxes.
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A. P. TOWLE, Chlorodyne Manufacturer
75 BACK PICCADILLY, MANCHESTER.

Bills with name on application with instructions for forwarding.

E. GOULD & SON,

Manufacturers and Importers of

HOMEOPATHIC MEDICINES AND HOMEOPATHIC SUNDRIES OF ALL KINDS.

PRICE LISTS OF MEDICINES, MEDICINE CHESTS, &c., POST FREE TO ANY PART OF THE WORLD.

59 MOORGATE STREET, LONDON, E.C.

ORIGINAL AND ONLY GENUINE

HOMEOPATHIC ABSORBENT WAFERS (REGISTERED),

For administering Tinctures of all Dilutions without the inconvenience of Dropping or the necessity of Water.

MESSRS. CONYNGHAM & CO. are convinced many Homeopaths would prefer the use of Tinctures to Pilules, were it not for the inconvenience experienced in dropping them, and the necessity of water for the administration of each dose; consequently they have introduced these ABSORBENT WAFERS as a successful mode of meeting this difficulty.

These Wafers are so prepared that, when placed over the mouth of the bottle (which is carefully tilted), they absorb the usual dose. The Wafer is then immediately placed upon the tongue to dissolve like an ordinary Pilule; thus at once dispensing with the trouble of dropping and the use of water.

"Very useful for business people. We wish the Wafers all success."—*Homeopathic World*.

"The Wafers will be found very popular, as they add considerably to the convenience of administration."—*Chemist and Druggist*.

Sold in ONE SHILLING Boxes only, with directions (in Spanish or German when required), by the Inventors—
CONYNGHAM & CO., Baggot Street, DUBLIN.

(The Original Green Label, CONYNGHAM & CO., 13 Stephen's Green North, Dublin).

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CAN BE OBTAINED THROUGH ALL THE WHOLESALE HOUSES.

TRUSSES

The World's Recognition of Merit.

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At the late INTERNATIONAL MEDICAL AND SANITARY EXHIBITION, the World's most competent Judges recognised their unequalled excellence by granting the

ONLY "AWARD FOR TRUSSES"

"To I. B. SEELEY, PHILADELPHIA, U.S.A."

(Over Sixty-Eight Competitors), confirming their high favour with America's most distinguished Surgeons.

London Exhibition Judges.—Thomas Bryant, F.R.C.S., Christopher Heath, F.R.C.S., Thomas Smith, F.R.C.S., John Wood, F.R.S., F.R.C.S.

SEELEY'S HARD RUBBER TRUSSES.



Fig. 1.



Fig. 5.



Fig. 29.

Fine Steel Springs, neatly covered with highly-polished Hard Rubber. Made in every desirable pattern; with Pads anatomically constructed. Light, cool, cleanly, durable; unequalled in quality, finish, and practical construction. Unaffected by time, use, or climate; used in bathing. Always Reliable. Prices reduced to meet the popular demands. Sold and supplied by all leading Druggists and Dealers. To avoid Spurious Imitations, see Genuine stamped (Spring and Strop), "I. B. Seeley—Warranted."

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Under the patronage of the world's most distinguished Surgeons.
References.—Professors S. D. Gross, D. Hayes Agnew, Willard Parker, W. H. Pancoast, Dr. Thomas G. Morton, and others.

Success finds envious IMITATORS, ask for "SEELEY'S GENUINE."

ESTABLISHED 1843.

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WHOLESALE AND EXPORT

HOMEOPATHIC CHEMISTS,

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And (late HENRY TURNER & CO.)

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ILLUSTRATED PRICE LIST ON APPLICATION.

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HORSE, CATTLE, AND SHEEP MEDICINES.



By Special Warrant,
Dated 27th December, 1865.

BY ROYAL APPOINTMENT.

DAY, SON & HEWITT,



By Special Warrant,
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"ORIGINAL" STOCK BREEDERS' MEDICINE CHESTS

For all Disorders in Horses, Cattle, Calves, Sheep, and Lambs.

Patronised for 50 years by Royalty, and the principal Stock Breeders, Horse Proprietors, and Agriculturists of the British Empire.

The No. 2 MEDICINE CHEST contains the following matchless remedies:—

- "CHEMICAL EXTRACT," for all External Injuries, and Ewes Lambing.
- "GASEOUS FLUID," for Colic, Scour, or Diarrhoea, and Debility.
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- "RED PASTE BALLS," for Mares after Foaling, and Conditioning Horses.
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- "GASEODYNE," for Heaving and Paining, "CARMINATIVE CHALK," &c.

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CARRIAGE PAID TO ALL PARTS OF THE BRITISH ISLES.

Admirably adapted for all ordinary ailments among Stock, and each preparation can be had separately. Full and easy directions enclosed.

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2 "	£1 5 6 "	"	£1 3 0 "	1 "	7 16 0 "
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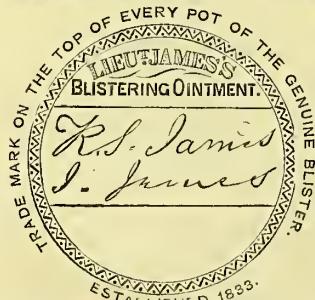
JAMES v. JAMES.—LORD ROMILLY, the Master of the Rolls, on February 23, 1872, declared "that I had an equal right with other members of the Inventor's family possessing the receipt to make and sell this Blister."—R. J. JAMES.

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CATTLE MEDICINE

ESTABLISHED MORE THAN FIFTY YEARS.

USED AND RECOMMENDED BY UPWARDS OF 20,000 AGRICULTURISTS.

CORNER'S PINE'S DEVONSHIRE OIL

For Outward and Inward Application, is the best and cheapest remedy for any ailment Stock is liable to, and no stable, farm-yard, or shepherd should be without them. Cattle and Horses.—As an Embrocation or Drench for MUD FEVIL, Brusels, Swellings, Sprains, SWOLLEN UDDERS of Cows, the Scour, Caives, Internal and External Inflammations, Butts, &c., Wounds or Galls of any kind. WINE SIZE, 2s.

Lambing.—Invaluable to the Shepherd during Lambing, for Colic, Inflammations, Cleansing, Udder-ill, Scour, &c.

In Sheepshearing, for Cuts, Sores, or Sprains.

For the Fly and Maggot in Sheep.—Nothing can surpass the value in summer for healing the worst Sores caused by the Fly, at the same time invigorating the growth of Wool.

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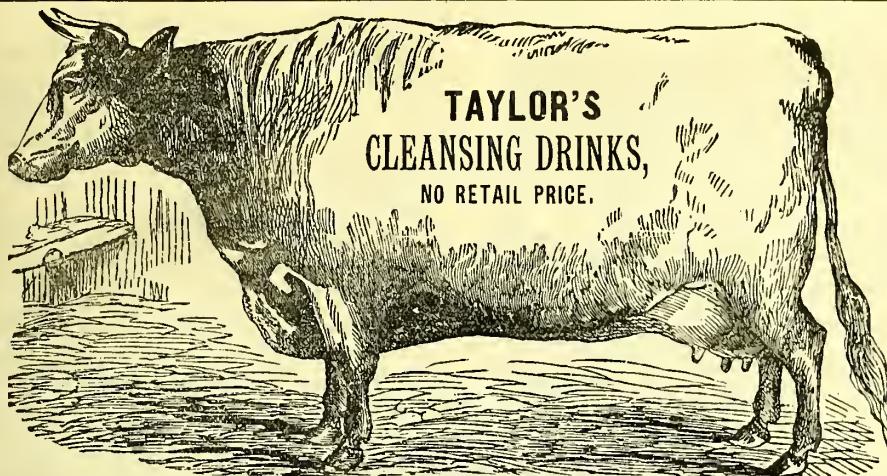
RAT POISON.

"Among many preparations for killing Rats I have never found anythi answer so well as that I obtained from

MESSRS. SANFORD & SON, of Sandy, Bedfordshire. From One Dressing I found 120 dead rats."—G. WINTER, Park Farm, Walden, Essex.

The Poison can be obtained in Boxes at 1s. (1s. 2d. with Postage) upwards. Price to Chemists, 7s. per dozen on Sale or Return.

Wholesale of MESSRS. BARCLAY & SON, Farringdon Street.



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	Per doz.	Retail.
TAYLOR'S Condition Balls	24/-	3/-
Ditto ditto	12/6	1/9
TAYLOR'S Condition Powders.....	18/-	2/6
TAYLOR'S Cough Powders	18/-	2/6

	Per doz.	Retail.
TAYLOR'S Cleansing Drinks.....	5/-	(No retail price)
TAYLOR'S Foot Rot Mixture	7/-	1/-
Ditto ditto	14/-	2/-
Ditto ditto	28/-	3/6

SUBJECT TO THE USUAL DISCOUNT.

T. TAYLOR would call especial attention of the Trade to his "Cleansing Drinks," 5s. per dozen. They are put up in neat PACKETS, and save the Chemist immense trouble. If preferred, the Drinks can be had without the word "Taylor's"—only "Cleansing Drinks"—thereby enabling the Chemist to affix his own slip label; but to secure this, when ordering ask for those with the pink label.

NO RETAIL PRICE AFFIXED.

PREPARED BY THOMAS TAYLOR, M.R.C.V.S., DERBY,
And to be had from all the Wholesale Houses, or direct in gross boxes at £3 per gross, less 20 per cent. cash (carriage paid).



VESICO SUDORIFIC.

VESICO SUDORIFIC (Registered) will not blemish, but will, quicker than any other remedy, relieve and cure Splint, Spavin, Ringbone, Sidebone, Capped Hock, Curb, Windgall, and strengthen the legs of Horses. Also for Tumours in Cattle. Price, 2/6 size 24/- per doz.; 5/- size 1/ per doz., with usual discount. PROPRIETOR—

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Beg to call the attention of the trade to the following specialities, which will be found worthy of a place in the stocks of all Chemists, and the favour of an order, either direct or through the leading London Houses, will much oblige.

Fly Tick and Lear Powder, for dressing Sheep and Lambs	in tins, 1/-, 2/-, 3/-
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SPRATTS PATENT DOG MEDICINES AND SOAP. TASTELESS APERIENT BISCUIT FOR DOGS.

The Field, 28th January, 1882, says:—"The satisfactory results we obtained leave no doubt in our mind as to the value of the invention."

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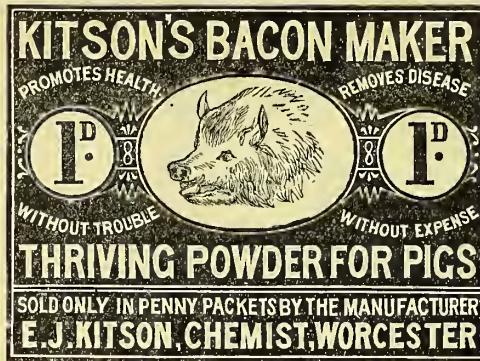
(PATENT)

CURES ALL KINDS OF CUTS, BRUISES, AND WOUNDS IN MAN AND ANIMALS.

"SPRATTS PATENT," Bermondsey, S.E., or order through your Wholesale House.

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Price 8/- per gross, packed in 1-gross and 1/2-gross boxes.



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SPONG'S (REGISTERED) BEDFORDSHIRE PIG POWDERS

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Being advertised throughout the country, and exhibited at the various Agricultural Shows, is causing a large demand.

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THESE POWDERS have now been before the Public for Thirteen years. The large and increasing sale, together with the numerous testimonials constantly being received, prove that the public are fully alive to the fact that they are the **BEST MEDICINE** for **DISEASES** to which **PIGS** are subject, and are also the best **CONDIMENT** known. The publicity given to this preparation ensures a good sale wherever introduced, and the Proprietor is desirous to assist all who will undertake to keep them in stock by supplying them with Show Cards, Posters, and Counter Bills, with name and address thereon. They are put up in Packets containing half-dozen and one-dozen Powders, and Retail at Fivepence and Tenpence. The Fivepenny Packets in two dozen and three dozen, and the Tenpenny in one dozen boxes. Retailers will be charged 40/- per gross for Fivepenny, 80/- per Gross for Tenpenny Packets, less 10% One Month, by

W. Sutton & Co.; Harvey, Newman & Co.; Thompson, Millard & Co.; Hovenden & Sons; Barclay & Sons; Sanger & Sons; Newbery & Sons; and W. Edwards & Son, London. A. Woodcock, Norwich. R. Daniels, Derby. Goodall, Backhouse & Co.; Hirst, Brooke & Hirst, Leeds. Lofthouse & Co., Hull. Rimes & Co., York; and from all Wholesale Houses or from the PROPRIETOR, JOHN W. DENNIS, CHEMIST, LOUTH, LINCOLNSHIRE, ENGLAND



FIELDING'S CHEMICAL POULTRY FOOD OR NATURAL EGG PRODUCE (REGISTERED).

WILL ENSURE PROFITABLE POULTRY KEEPING.

EGGS may be PRODUCED throughout the WINTER at 1s. per doz.

Chemists, Grocers, and Country Shop Keepers should at once lay in a stock.

Neatly packed in 2d. Packets, or 12 in a Box, 1/9.

Wholesale in Half-gross Glass-top Boxes per gross 11/6 in One gross 1s. 9d. Boxes, each 12 " per doz. Boxes 12/

S. MAW, SON & THOMPSON, Patent Medicine Houses, Or J. H. CALVERT, 57 Geneva Road, Brixton, S.W., proprietor of Calvert's "Save yo Bacon Pig Powders," a certain remedy for ailments to which swine are subject, especially "Swine Fever." Handbills and Show Cards Supplied.

DRUGS, CHEMICALS, PHARMACEUTICAL PREPARATIONS. GABRIEL & TROKE,

Wholesale and Export Druggists and Manufacturing Chemists
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GABRIEL & TROKE'S REGISTERED CAPSULED HORSE BALLS.



Manufactured solely by GABRIEL & TROKE,
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MANUFACTURERS OF ALL VETERINARY PREPARATIONS, EVERY KIND OF
VETERINARY INSTRUMENTS AND SUNDRIES.
SAMPLES AND SPECIAL QUOTATIONS FOR LARGE BUYERS.

The superior advantages of these Balls are obvious. The mass is confined in a hermetically sealed gelatinous capsule, perfectly harmless, and immediately dissolved in the stomach. The Capsule will not only prevent the Ball from getting dry and hard, but will preserve its purity and power for any reasonable time, and ensure the effectiveness of the medicine—especially when such drugs as Camphor, Ammonia, or Essential Oils are prescribed.

These Capsuled Balls are most convenient and safe and well adapted for export, keeping good in any climate. They are put up in Boxes of 1 dozen each. Capsuled Balls of the most approved formulae on hand, and private recipe faithfully and accurately dispensed. Shipping orders promptly and carefully executed, and at lowest market prices. Price Lists of a very extensive character in

CHLORIDE OF LIME.

IN WATERPROOF, AIR-TIGHT, & ODOURLESS PACKAGES. Protected by Royal Letters Patent.

Is neat and clean, and convenient for use. Being air-tight and odourless, retains its strength unimpaired.

IT IS ADMIRABLY ADAPTED FOR EXPORT, AND WILL
KEEP FOR YEARS IN ANY CLIMATE. Per Box.
24-lb. BOXES, containing 24 1-lb. Packages 6/6
Ditto ditto 48 ½-lb. ditto 7/0
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Ditto ditto 1 Gross Penny Packages 8/0
Per Case.

50-lb. CASES, containing 50 1-lb. Packages 13/0
Ditto ditto 10 5-lb. ditto 13/0
Ditto ditto 100 ½-lb. ditto 14/0
Ditto ditto 200 ¼-lb. ditto 16/0
Ditto ditto 1-lb., ½-lb., & ¼-lb., assorted 14/6

Also in 1 cwt. and ½-cwt. Cases, to meet the requirements of large buyers
and the Export Trade.

Packed also in Jars, Bottles, Casks, and Cases to order.

The Patented Composition for Export Orders is specially prepared to
bear any Climate.

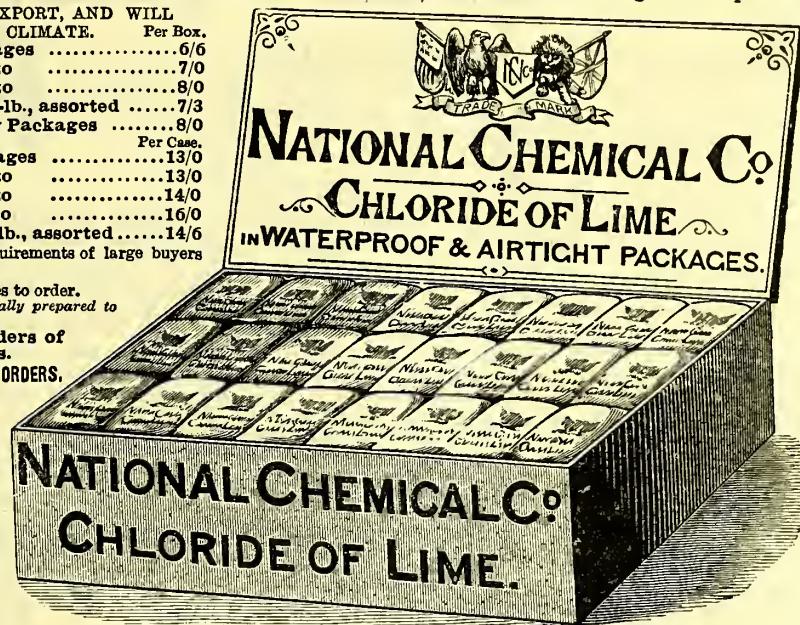
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SPECIAL QUOTATIONS FOR CONTRACT OR LARGE ORDERS.

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SAMPLE BOX OR CASE CAN BE HAD FROM ANY OF OUR WHOLESALE AGENTS OR ANY LONDON-
OR COUNTRY WHOLESALE DRUGGISTS. ALL GOODS DELIVERED FREE IN LONDON.

NATIONAL CHEMICAL CO., 29 Suffolk Grove, Gt. Suffolk St., Southwark, S.E.

“HUNTER’S” INFALLIBLE VERMIN DESTROYER

IS THE MOST DEADLY.

Cannot be excelled.

Thirty-seven years' reputation.

Manufactory—DEWSBURY. ENGLAND.



Always gives satisfaction.

SUPPLIED ON THE BEST TERMS
BY ALL THE WHOLESALE HOUSES.

100 Rats destroyed for a Shilling by
BARBER'S PHOSPHOR PASTE,

WRAPPED NEATLY FOR THE COUNTER.

Handsome, attractive Posters supplied; if conspicuously placed will command
constant sale.

Kills Rats, Beetles,
etc.
THE DEAD VERMIN
DRY UP
WITHOUT SMELL.



3d., 6d., 1s., 2s., 6d., and 5s. Tins. Also

BARBER'S VERMIN KILLER,
In 2d., 6d., and 1s. Packets. Kills Mice upon the spot.

Testimonial from Her Majesty's Rotovetter, Hampton, Middlesex,

May 25, 1870.—

“I have been more than forty years employed at Hampton Court Palace, the Royal
Tables, and other buildings in and around the Royal Parks, for the destruction of
all mice, and other vermin. I have the entire charge of this duty, and after trying
all the rat poisons which I have heard of at different times, I now use Barber's
‘Phosphor Paste,’ and Vermin Killer, with which alone I am able to keep these
nasty places and national works free from vermin. Signed, CHARLES SHONES.”

ASK FOR BARBER'S, AND SEE THAT YOU GET IT.

WORKS, SALISBURY. ESTABLISHED 1838.

Special Quotations to Shippers. Supplied by all the London Wholesale Houses.

AFFINITAN

The new Disinfectant, is better and cheaper than any other.
NO SMELL. NO STAIN.

POWERFULLY OXIDIZING.

Excellent terms to the trade. Sole Maker:

A. J. SHILTON, 40 Paradise St., Birmingham.

FOSTER'S PEARL-COATED ROUP PILL

Retail, 2d., 6d., 1s., and 2s. per box.

These Pills have found great favour wherever introduced, being a successful remedy
for this troublesome complaint, the price 2d., placing them within reach of the
poorest keeper of Fowls, supplying a want long in demand, the high prices usually
charged precluding all but the well-to-do Fancier.

An Agent wanted in every Town. Sample dozen of the 2d. size, post free, 1s. 6d.
Agents' Addresses periodically advertised in their local papers, thus bringing them
directly before the notice of consumers in their neighbourhood. Send copy of News-
paper, with order (however small), and an Advertisement shall be inserted, as, when
known, they sell well.

Foster's Poultry Ointment for Scaly Leg; Foster's Poultry Powder, for Cramp; Foster's Poultry Pills, for Condition, retail 1/- per box.

Wholesale Agents:—London: Evans, Leacher & Webb, 60 Bartholomew Close; Lynch & Co., Aldersgate Street; W. Edwards & Son, 157 Queen Victoria St., E.C.; Wyleys & Co., 223 Upper Thames Street; Coventry: Birmingham: Sonthall Bros. & Barclay. Manchester: Whitehead, Hulbrook & Co. (successors to W. Mathen). Liverpool: Evans, Sons & Co. Montreal, Canada: H. Sugden Evans & Co.

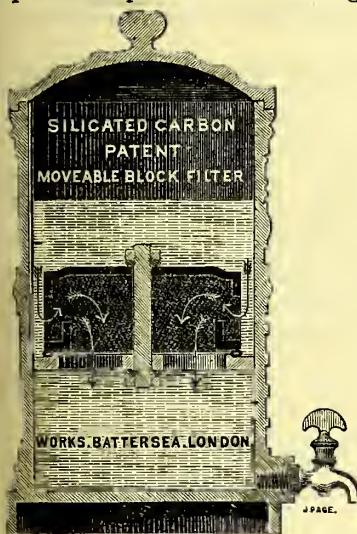
PROPRIETOR:

F. F. FOSTER, Navigation Street, BIRMINGHAM.

I

SILICATED CARBON PATENT MOVABLE-BLOCK FILTERS.

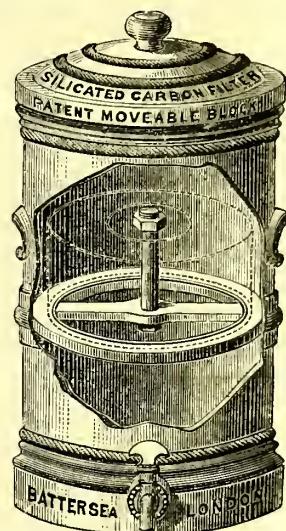
These Filters are constructed on Scientific principles, and can be renewed or repaired by the user without returning to the maker. They possess all the advantages of those with fixed filtering mediums, while the simple removal of the Silicated Carbon Block leaves the *whole* of the interior of the Filter open for inspection and cleansing. The working parts are stoneware, and no corrosion is possible.



(Section.)

The block being non-porous on the top and edges, an *upward* direction is given to the water, which thus passes through a greater thickness of the Silicated Carbon,

as shown by the arrows in drawing.



(Elevation with Block removed.)

The Silicated Carbon Block can be instantly removed, leaving the whole of the interior of the Filter *open* for inspection and cleansing.

To Cleanse the block, plunge it into boiling water, and well scrub it with a hard brush.

Extra blocks can be supplied with each Filter. All parts being interchangeable can be replaced in case of accidents.

This Patent can be adapted to all patterns manufactured by the SILICATED CARBON FILTER Co. *without increased charge*. In ordering please state "with patent movable block."

Domestic Filters (as above), in Cream-coloured Stoneware, with Plated Taps and Patent Movable Blocks:—

No. 27. O. $\frac{1}{2}$ gal. 10/- each. D. 6 gals. 42/- each.
 A. 1 ", 14/- ", E. 8 ", 52/- "
 B. 2 ", 21/- ", F. 12 ", 70/- "
 C. 4 ", 32/- ",

Dining Room Filters, in Marbled China with Plated Taps and Patent Movable Blocks:—

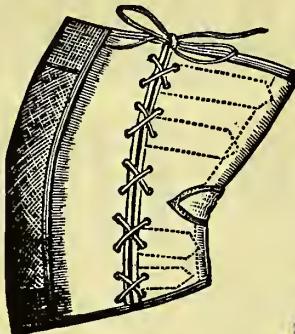
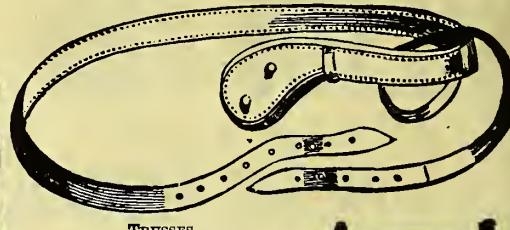
No. 22. A. 2 gals. 35/- each.
 B. 5 ", 80/- ",

Refrigerative Terra Cotta do., do.:—
 No. 25. 2 gals. 31/6 each.

All makes of Filters can be refitted on this principle, 1 gal. 8/6, 2 gals. 10/-, 4 gals. 12/- each.
 Larger sizes in proportion.

SILICATED CARBON FILTER COMPANY. WORKS: BATTERSEA, LONDON.

HAYWOOD'S SURGICAL APPLIANCES.

LADIES' AND GENTS'
CHEST-EXPANDING
BRACES.MAGNETIC APPLIANCES,
KNEE CAPS, BELTS, &c.ELASTIC
STOCKINGS.

TRUSSES.

Greatest attention paid to Special
Orders, which are invariably
forwarded per return of post.



SUSPENSORY BANDAGES.

List of Prices and Directions for Measurement forwarded on application.

J. H. HAYWOOD, Castle Gate, NOTTINGHAM.

Original Plaster Works.

ESTABLISHED OVER 60 YEARS.

A. De St. Dalmas } 40 Belgrave Gate, Leicester.
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MEDICAL PLAISTERS

Of all kinds (Best Quality) for HOME and EXPORT. PATENT
POROUS PLAISTERS—Yards or Boxes.

Order "St. Dalmas's" through Wholesale Houses. Prices on application.

FRANCIS'S
BRONCHIAL PROTECTOR

REGISTERED TRADE MARK.

Is the best preventive and cure of Bronchitis, Asthma, Winter Cough
Tight Breathing, and all Throat Complaints. 1s. 1½d. & 2s. 9d.Mr. J. D. Fisher, Chemist, Blackpool, in ordering another supply says—"I
have tried it myself, and have received great benefit from it. My customers
speak highly of its virtues. Have sold the last, so be prompt, please."Manufactured by A. DE ST. DALMAS } Leicester.
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LINDSEY & SONS,
EXPORT
TRUSS & BANDAGE MANUFACTURERS,
32 LUDGATE HILL,
AND
40 GRACECHURCH STREET, LONDON, E.C.

NETT PRICES.—1883.

		Per dozen.	Per dozen.
COMMON PRINCIPLE TRUSSES, Basil and Chamois	.. £0 16 0	.. £1 7 0	
Ditto Mole Lined ..	18s. and 1 0 0	Ditto Calf and Silk sewn ..	1 10 0
Ditto White or Red Roan ..	1 4 0	Ditto Double, Basil and Chamois, £2 2s. and 2 8 0	
Ditto Calf Covered, Silk Sewn ..	1 10 0	Ditto " White or Red Roan ..	2 14 0
DOUBLE TRUSSES, COMMON PRINCIPLE, covered Basil and Chamois	1 4 0	Ditto Calf, Silk sewn ..	3 0 0
Ditto Mole Lined ..	1 6 0	VERY NARROW, SALMON & ODY'S PRINCIPLE, as "Wickham's," a Superior Truss, Single ..	2 14 0
Ditto White or Red Roan ..	1 10 0	Ditto Double ..	5 8 0
Ditto Calf and Silk sewn ..	1 15 0	COLE'S EXPIRED PATENT TRUSSES, Single, covered best Doeskin	48/- and 3 0 0
SINGLE CIRCULAR, VERY LIGHT AND NARROW SPRING, imperceptible—		Ditto Double, covered best Doeskin, 96/- and 6 0 0	
Plain, Single ..	1 12 0	MOC-MAIN TRUSSES, Plain, Stuffed real Moc-Main— as White's, £3 12s. Double 7 4 0	
Best Covered, Single ..	2 5 0	Ditto Sunk Springs, ditto— as White's, £5 8s. Double 10 16 0	
Plain, Double ..	2 2 0		
Best Covered, Double ..	2 16 0		
SALMON & ODY'S EXPIRED PATENT, Single, Basil and Chamois ..	1 4 0		

LINDSEY & SONS' Trusses have long maintained a high reputation for quality, and they will be happy to send their full descriptive price list on receipt of address, post free.

Customers are requested to order specially LINDSEY & SONS' TRUSSES, either direct or through any Wholesale House.

PRIZE MEDALS, INTERNATIONAL EXHIBITIONS.



LONDON, 1862.



PARIS, 1875.



PHILADELPHIA, 1876.



PARIS, 1878.



SYDNEY, 1879.



MELBOURNE, 1880.

KILNER BROTHERS,

MANUFACTURERS OF

GLASS BOTTLES,

VAN BOXES, CASES, &c.,

Respectfully invite attention to the following Goods that they supply:

DISPENSING BOTTLES.

GREEN FLINT—Flats, Ovals, Octagons, Rounds, Direct Squares.

WHITE FLINT—Vials, tall, medium, and squat series—Round Shoulders, Octagon, Homeopathic, Wide Mouth.

BLUE GLASS—Poisons, octagon and flat.

“OUR BABIES’ BOTTLE,” in green and white glass.

“OUR DARLINGS’ BOTTLE,” in white glass.

All with white, brown, or black fittings.

PERFUMERY BOTTLES.

WHITE FLINT—Lubins, Essences, oval, flat, round, pyramid, and toilet; Eau de Luce, Lavenders, Panel Flats, Preston Salts, Watch Perfumes, Toilet Vinegars, Pomades—all kinds, Eau de Colognes.

CHEMISTS’ BOTTLES.

PALE GREEN—Panel Flats, Salines.

BLUE GLASS—Citrate of Maguesias.

WHITE FLINT—Kalies, Rounds—wide mouth; Marking Inks, Round Oils, Shop Rounds, Ether Rounds, Show Carboys, Syrups, &c., &c.

GLASS—Measures, Conical, Cylindrical, Cup Bottom, Tumbler, Wine, and Minim, Funnels, Mortars and Pestles, Stirring Rods, Nipple Shells, Test Tubes, Eye Baths, Spirit Lamps, Sample Tubes, Tube Vials.

EARTHENWARE—White Covered Pots, ordinary, thin, tall, and thick; also labelled Cold Cream.

WHITE OPAL GLASS—Covered Pots, ordinary.

CORKS—A good selection of sizes and qualities.

PARCELS-POST BOXES—To suit all Bottles.

DISPENSING BOTTLES.

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PERFUMERY BOTTLES.

CHEMISTS’ BOTTLES.

SUNDRIES.

SUNDRIES.

Also Wholesale Druggists’, Oil, Tap, Pickle, Sauce, Vinegar, Wine, Spirit, Beer, Mineral Water, Common, and other Bottles, Syphons, Van Boxes, Cases, &c.

NOTICE.—WE PUBLISH

FOR HOME TRADE,

MONTHLY, a 12-page Circular, containing full particulars of our goods, in which attention is invited to new kinds as they are added, and prominence given to goods in season.

QUARTERLY, Price List of Dispensing, Feeding, Perfumery, and Chemists’ Bottles and Sundries.

AT INTERVALS, Price Lists of other goods as mentioned above, in separate sections for different trades.

AT INTERVALS, Illustrated Catalogues of all our goods.

QUARTERLY ILLUSTRATED PRICE LIST (nearly 50 pages), full of information for Foreign Buyers.

FOR HOME TRADE.

FOR EXPORT TRADE.

ORDERS FROM THE HOME OR FOREIGN TRADE WILL HAVE CAREFUL ATTENTION.

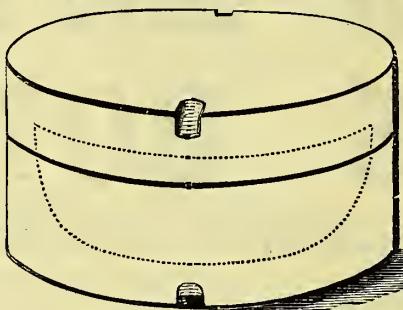
KILNER BROTHERS,
No. 3 GT. NORTHERN GOODS STATION, KING’S CROSS, LONDON.

TOOGOOD'S NEW REGISTERED EARTHENWARE COVERED POTS

ARE CLAIMED TO BE THE MOST PERFECT AND CONVENIENT YET OFFERED TO THE TRADE, AND POSSESS THE FOLLOWING ADVANTAGES:

1st.—An India-rubber Band passed vertically over the pot is kept in its place by the notches, and effectually secures the lid; for travelling this supplies a want greatly needed.

2nd.—The Covers being made quite flat, labels can be affixed with ease, and without creasing.



3rd.—The inside of the Pots being rounded or egg-shape, the contents can be entirely removed without waste.

4th.—Great attention has been paid to insure accuracy of contents.

$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	3	4	6	8 oz.
18/-	20/-	22/-	24/-	27/-	34/-	42/-	54/-	66/- per Gross.

TO BE OBTAINED ONLY OF

WILLIAM TOOGOOD,

WHOLESALE GLASS BOTTLE MANUFACTURER & DRUGGISTS' SUNDRYMAN,
35. 36. & 37 MOUNT STREET GROSVENOR SQUARE, LONDON, W.

N.B.—William Toogood has opened Registers for "Principals requiring Assistants" and "Assistants requiring Situations," and will be pleased to insert applications.

ESTABLISHED 1840.



GLASS BOTTLES

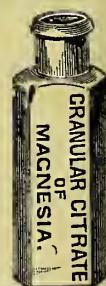
OF EVERY DESCRIPTION. BEST QUALITY.

Prices as low as any in the Market. Send for Samples and New Illustrated Catalogue before purchasing.

SHIPPERS & WHOLESALE HOUSES LIBERALLY TREATED.

A TRIAL ORDER SOLICITED.

E. YOULDON, East London Glass, Bottle Warehouse, 36, 38, & 40 GREAT GARDEN ST., LONDON, E.



SHOP BOTTLES & JARS WITH VITRIFIED (burnt in) LABELS

(Black letters on a ground of pink or white enamel).

Narrow-mouthed and Wide-mouthed Bottles, well stoppered; Capped and Tube-stoppered Oil Bottles; Syrup Bottles, with Plug Stoppers of Dark Blue or White Opaque Glass; Lozenge Jars with Cut Glass Knobs; Cut Perfume Bottles, Round, Oval, and Square; Shop Jars of Best Porcelain, thoroughly Greaseproof. Labels Indestructible and of Elegant Appearance, forming an even surface with the Glass or Porcelain. PRICE LIST ON APPLICATION. A Large Variety of Samples on Show at



H. POTHS & CO.,
4 SUGARLOAF COURT, 50 LEADENHALL STREET, LONDON, E.C.

Amongst others the following have been supplied with these Bottles and Jars:—Bradford & Co., Bridlington Quay; Birks, N. & W. H., Adelaide S. A.; Büchner, M., 124 High Street, Whitechapel, London, E.; Brown, Alex., Dunoon, N. B.; Corry, T. C. S., Dr., Belfast; Cottingham, W., Lincoln Croyden, E. H., Newcastle-under-Lyne; Davis, Hayton, High Harrogate; Donovan, Richard, Blackrock, near Dublin; Durrant, G. R., Hertford; Hall Ralph, 552 Kingsland Road, London, N.; Hill, J. B., Auckland, N. Z.; Jenkins, J. T., Nottingham; Jones & Co., Christchurch, N. Z.; Lofthouse, J. Fleetwood; Pasmore, W. F., 820 Regent Street, London; Potts, Charles, Ilkeston; Proctor, Wm., & Son, Newcastle-on-Tyne; Roberts, D. P., Croydon Surrey; Robinson, C. J., Streatham, London; Robinson, H., Baildon, near Leeds; Sonthern, J., Manchester, opposite the Assize Court; Taylor, P. N. 14 Basinghall Street, London, E.C.; Twinherrow, W., & Son, 80 Wigmore Street, London, W.; Waterall, Geo., & Sons, Nottingham.

Feeding Bottles.

The "ECLIPSE."



White Fittings, 30/- per gross.

Best Black Fittings, 38/- per gross.

The above are put up in One Dozen Wood partitioned Boxes.

HEARN, RIDDELL & CO.,

Glass Bottle Manufacturers,

381 KINGSLAND ROAD, LONDON, E.

GLASS BOTTLES of EVERY DESCRIPTION, either PLAIN or STOPPERED, made in WHITE, BLUE, AMBER, ACTINIC GREEN, or any other colour required.

**SCREW NICKEL CAPPED POMADES, HONEY POTS, JELLY JARS,
&c., &c.**

SPECIAL ATTENTION GIVEN TO QUALITY.

Quotations, post free, to any part of the world on application.

The above will be found the **BEST** and **CHEAPEST** House in the trade.

8 ozs., 10 ozs., 13 ozs. Fluid,
this shape pot.



FRENCH SCREW GLASS POTS & BOTTLES, WITH METALLIC NICKLED CAPSULES.

The above new method will show advantageously Jams, Jellies, Honey, Drages, Cachous, Pills, Lozenges, &c.; is specially adapted for Export, and excels all others for neatness and elegance. Made in various new Designs—Pots, "Kalis" tube-shaped Bottles, Boobs, &c. Speciality for Bottles for all kinds of Confectionery, Essences Manufacturers, and Sundries.

Manufacturer of the GLASS, POMADE POTS WITH GLASS COVERS, in Opal White and Blue and White Flint in all sizes.

G. V. DE LUCA, French Flint Glass Manufacturer, 6 and 7 Long Lane, LONDON, E.C.
WHOLESALE AND EXPORT AGENTS—S. MAW, SON & THOMPSON, 7 TO 12 ALDERSGATE STREET, LONDON, E.C.
Illustrated Catalogue for Patent Screw Capsule on application.

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GAMGEE TISSUE.
(PATENT ABSORBENT GAUZE AND COTTON WOOL.)

ABSORBENT COTTON WOOL.

ROLL BANDAGES.

ROBINSON & SONS,

COTTON SPINNERS AND MANUFACTURERS OF
**SURGEONS' LINTS, COTTON WOOLS,
AND BANDAGES,**

**WHEAT BRIDGE MILLS,
NEAR CHESTERFIELD.**

Depot—55 Fann Street, Aldersgate Street, London.



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WHITE & LANSDALE, successors to

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(Mr. WHITE many years Manager to Messrs. E. GOULD & SON at above address),

20 BISHOP'S ROAD,

LONDON, W.

ESTABLISHED 1863.

MANUFACTURERS OF HOMOEOPATHIC MEDICINES & SPECIAL PREPARATIONS.



A willing mind makes light employment.



Labour well planned is half done.

BOWLING & GOVIER

(Late Partners with FILMER KIDSTON),
MEDICAL SHOP FITTERS & CASE MAKERS.

Our friends are kindly requested to notice our
REMOVAL TO NEW WORKSHOPS, where alone our Special Class
Manufacture can now be obtained.
THE ART JOINERY WORKS, 22 GUN ST., BRUSHFIELD ST.,
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Send for Estimates, also for List of the Shops fitted in our Modern Style.

WORKS: 3 CROPLEY STREET, WENLOCK STREET, HOXTON.

NOTICE FOR REFERENCES.

J. Jones, Chemist, two Shops, New Wandsworth.
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Wood & Layng, Finsbury Pavement, London.
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AIR-TIGHT CASE MAKERS,
12 Curzon Street, Wenlock Street,
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CHEMIST & DRUGGIST SHOP FITTED IN
COUNTRY SAME PRICE AS IN TOWN.
20 per cent. cheaper than any in the
Trade. No charge for packing, and
estimates free.

MEDICAL LABELLING, ETC.

NOTICE! THE BEST AND CHEAPEST MANUFACTURERS IN THE TRADE.

W. S. YATES,

Chemists' Shop Fitter, Shop Front Builder, and
Glass Show Case Maker.

DENTIST CASES.

Plans and Estimates supplied for Work in any part of the Kingdom.

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Fitted by W. S. Yates.

Shop Fittings, Labelling, and Glass Writing
OF EVERY DESCRIPTION.

SHOW CASES, &c.,

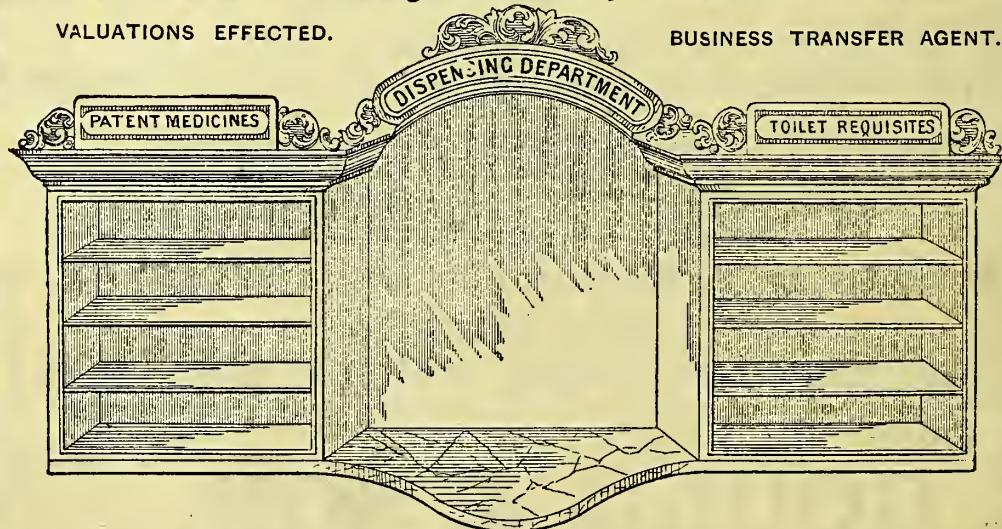
DESIGNERS & MANUFACTURERS,
EVANS, SONS & CO., 56 Hanover Street, LIVERPOOL.

Druggists' Sundries Department.

R. TOMLINSON, DRUGGISTS' SHOP-FITTER, SHOW-CASE MAKER, AND MANUFACTURER OF DRUGGISTS' SUNDRIES, 15 St. PAUL'S SQUARE, BIRMINGHAM.

VALUATIONS EFFECTED.

BUSINESS TRANSFER AGENT.



This Case is made of choice Mahogany, with Mirror in centre, and is lined at back with Black French Leather Cloth; it has Plate-Glass Shelves, Glass Knobs on the Doors, a Marble Slab in the Centre and is fitted with Three Shelves at back. The Case is 6 feet long, 29 inches to corner, 33 inches to top of tablets, and 36 inches to top of centre mirror.

Second-hand Fixtures for Sale, Jars, Globes, Drawers, Bottles, Counter Glass Cases, Shelves, &c.

SECOND-HAND FIXTURES OF ALL KINDS BOUGHT AND EXCHANGED.

The Fittings of a Chemist's Shop, in Black & Gold, part by Treble, suit shop 14 feet by 14 feet, Price £30.

For Export or easy transit it is admirably adapted, as it takes to pieces, and can be fixed again in an hour. Packs into Case 34 by 36 at a cost of 10s., 3s., of which is allowed if the empty is kept, and the full value allowed if the returned carriage paid. Price, £8 10s.

GEORGE TREBLE & SON,

If New Fittings are required or Alterations become necessary, apply to GEO. TREBLE & SON, whose Travellers will call to take instructions and measurements in any part of the kingdom, and will prepare Suitable Designs and Estimates Free.

DRUGGISTS' SHOP FITTERS BY CONTRACT.
BRIDGE WHARF,
WHITMORE ROAD,
HOXTON, LONDON, N.

Agents—S. MAW, SON & THOMPSON, 7 to 12 ALDERSGATE, CITY.

NOTICE! 66 PENTONVILLE ROAD, N. *Sole Address.*

W. J. LEMAITRE & CO.,

(ESTABLISHED 1830)

Medical and General

**SHOP FITTERS
WRITERS, DECORATORS, &c.**

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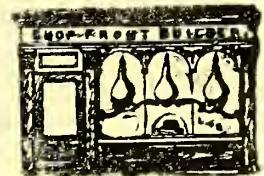
SHOP-FITTINGS.

ESTABLISHED 1830.

SAMUEL HOWLETT,

4 LINDLEY STREET (formerly called North St.), SYDNEY
STREET, MILE END, LONDON, E.

A few Minutes' Ride by Omnibus from the Bank.



MEDICAL AND GENERAL SHOP FITTER.

SHOPS FITTED BY S. H., and to whom references are kindly permitted:—

Messrs. Corbyn, Stacey & Co., 7 Poultry, London.
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Cabinet Fitter to the Pharmaceutical Society of Great Britain. Manufacturer of every description of Air-tight Glass Show-cases for Chemists, Jewellers, &c. Medical Labelling, &c.

Plans and Estimates for Entire Fittings and Alterations supplied.

ARTISTIC SHOP FITTINGS

FOR HOME AND EXPORT.

Our NEW CATALOGUE sent free on receipt of Business Card.

**JOHN CURTIS & SON, WADE STREET
and WADE LANE, LEEDS.**

ESTABLISHED 1852.

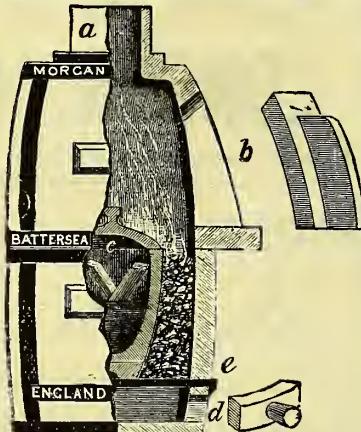
THE MORGAN CRUCIBLE COMPANY

(THE PATENT PLUMBAGO CRUCIBLE COMPANY),
Sole Manufacturers of MORGAN'S and SALAMANDER CRUCIBLES.

PORTABLE FURNACES.

IRON BOUND. EXTERIOR DIMENSIONS.

For MELTING GOLD, SILVER, COPPER, &c.



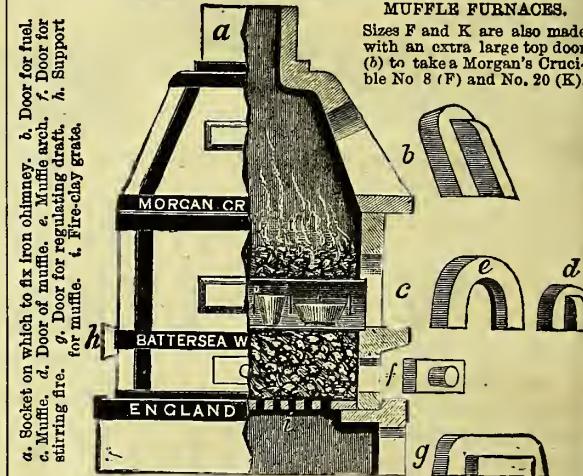
a. Socket on which to fix iron chimney. b. Door for putting in crucibles and for coke. c. Crucible. d. Door for regulating draft. e. Iron fire bars. f. Fire-clay grate.

No.	Diam. in.	Diam. milli.	Height, in.	Hauteur, milli.	For Morgan's Crucible.	Price. £ s. d.
A	9 $\frac{1}{2}$	235	17 $\frac{1}{2}$	445	No. 2	1 0 0
B	9 $\frac{1}{2}$	243	20	508	" 4	1 5 0
C	11	280	22	559	" 6	1 10 0
D	13 $\frac{1}{2}$	349	26	660	" 8	2 5 0
E	14 $\frac{1}{2}$	369	28	712	" 12	3 0 0
F	18	457	32	813	" 16	4 0 0

For ASSAYING. DENTAL WORK, &c.

MUFFLE FURNACES.

Sizes F and K are also made with an extra large top door (b) to take a Morgan's Crucible No 8 (F) and No. 20 (K).



Exterior dimensions.			Interior dimensions.			
Width and depth front to back	Largueur et profondeur	Width and depth front to back	Largueur et profondeur	For Battersea Muffles	Price	
A	12 $\frac{1}{2}$	318	9 $\frac{1}{4}$	235	A B C D	£2 0
B	13 $\frac{1}{2}$	337	10	254	B C D E	2 5
C	14 $\frac{1}{2}$	369	11	280	C D E F H	2 10
D	15 $\frac{1}{2}$	394	12	305	D E F G H	3 0
E	16 $\frac{1}{2}$	414	12 $\frac{1}{2}$	324	E F G H	3 10
F	17 $\frac{1}{2}$	445	13 $\frac{3}{4}$	350	F G H J	4 0
K	23	585	19	483	K L	8 0

MUFFLES.

With or without apertures.



No.	Long. in.	Wide. in.	High. in.	Price, per doz.	No.	Long. in.	Wide. in.	High. in.	Price, per doz.
A	7	3 $\frac{1}{2}$	2 $\frac{1}{2}$	21	G	11	4	3 $\frac{1}{2}$	21
B	7 $\frac{1}{2}$	4 $\frac{1}{2}$	2 $\frac{1}{2}$	15	H	10 $\frac{1}{2}$	5 $\frac{1}{2}$	3 $\frac{1}{2}$	25
C	8	4 $\frac{1}{2}$	3	18	J	12	6	4	33
D	9 $\frac{1}{2}$	5	3 $\frac{1}{2}$	21	K	14	8	5	48
E	9 $\frac{1}{2}$	5 $\frac{1}{2}$	3 $\frac{1}{2}$	24	L	15	9	6	54
F	10	6	4	27					

Sizes A to F, also K, are suited for the Furnaces of the same letters.

G to L have one slit at back only, none at sides.

In addition to those priced above, Muffles are made of all shapes and sizes, suitable for Assayers, Enamellers, Dentists, &c.

ASSAY CRUCIBLES.

FOR COPPER.

CORNISH FORM AND QUALITY (JULEFF).

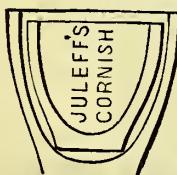
High, Hauteur, Diam. Diam.

in. milli. in. milli.

Nest of Two { 3 $\frac{1}{4}$ '083 3 '077 } 2/ per doz.

Single... 2 '064 2 '061 1/ "

All sizes and shapes to order.



FOR TIN.

High, Hauteur, Diam. Diam.

in. milli. in. milli.

3 $\frac{1}{4}$.. '083 .. 3 .. '077 .. 6/ per doz.

Covers, 2/ per doz.



Covers, 2/ per doz.

P.P.C.C.
BATTERSEA

FLAT, WITH EARS.

POROUS BATTERY CELLS OF SUPERIOR QUALITY.

P.P.C.C.
BATTERSEA.

ROUND.

LIST OF PRICES ON APPLICATION.

P.P.C.C.
BATTERSEA

FLAT.

FOR GOLD.

THESE ARE PERFECTLY SMOOTH, AND OF THE CORRECT POROSITY.

Diam. Diam. Height, Hauteur, Per.

No. in. milli. in. milli. doz.

A .. 1 $\frac{1}{2}$.. '027 .. 1 $\frac{1}{2}$.. '027 .. 2/

B .. 1 $\frac{1}{2}$.. '032 .. 1 $\frac{1}{2}$.. '032 .. 2/

C .. 1 $\frac{1}{2}$.. '038 .. 1 $\frac{1}{2}$.. '038 .. 2/

D .. 1 $\frac{1}{2}$.. '051 .. 2 $\frac{1}{2}$.. '089 .. 9/

Covers for either size, 6d. per doz.



Tin.
&c.

NOTICE.—Care should be taken in all instances, when ordering, to specify the Crucibles, &c., manufactured by THE MORGAN CRUCIBLE CO. (Sole Manufacturers of Morgan's and Salamander Crucibles), Battersea Works, LONDON, S.W.

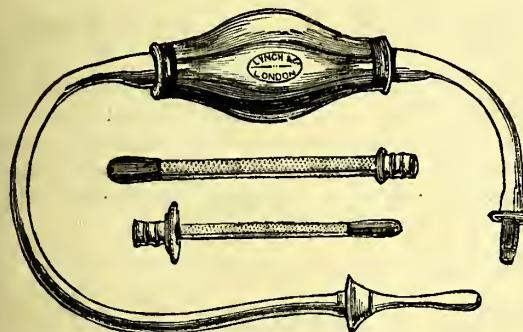


LYNCH'S

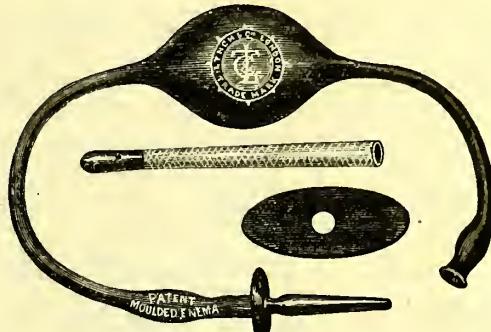
PRIZE MEDAL,



SYDNEY, 1879.



No. 436.



No. 435 D.

ENEMAS.

SUBJOINED ARE PRESENT PRICES:

		£	s.	d.
433A.	HIGGINSON'S, unvarnished india-rubber, with rectum pipe only, in slide cedar boxes	...	...	...
433B.	Ditto, with elastic-gum vagina pipe and leather shield	...	...	1 5 0
434.	Ordinary Higginson's, barrel shape, with bone rectum pipe, elastic gum vagina pipe, to plug on, and patent leather shield, in slide cedar box	...	...	1 10 0
434AA.	Ditto, fitted with vagina pipe with reversed current	...	...	1 12 0
434A.	Ditto, ditto, with disconnecting mounts	...	...	1 16 0
435C.	LYNCH'S (Higginson's principle), black, green, red or white india-rubber, requiring no metal mounts, in one continuous piece, <i>warranted not to split</i> , fitted with vulcanite rectum pipe, in slide cedar box	...	...	1 14 0
435D.	Ditto, with elastic-gum vagina pipe, and leather shield, in slide cedar box	...	...	1 10 0
436.	LYNCH'S FAMILY (Higginson's principle), fitted with bone bulb pointed rectum pipe for adults, elastic-gum vagina pipe, and elastic-gum rectum pipe with bone shield for children, in mahogany box	...	...	1 15 0
437.	Ditto, in slide cedar box	...	...	2 8 0
437A.	LYNCH'S PERFECTION, in mahogany box	...	...	2 3 0
437B.	Ditto, in slide cedar box	...	...	2 17 0
437C.	Ditto, in superior mahogany box, with lock and key	...	...	2 10 0
437D.	Ditto, in oval boxes of cloth and leather	...	...	3 12 0
437E.	LYNCH'S COMPLETE HOUSEHOLD SYRINGE, consisting of Higginson's Enema with disconnecting mounts, fitted with bone bulb-pointed rectum pipe for adults, elastic-gum rectum pipe with bone shield for children, elastic-gum vagina pipe, and bone pipes for ear, eyes, and nose, in mahogany box	...	...	2 15 0
		each	0	7 6

Discount—10 per cent. Monthly, 5 per cent. Half-yearly Account.

SPECIAL QUOTATIONS FOR 12 DOZEN AND UPWARDS.

LYNCH & CO.,

Wholesale and Export Chemists and Druggists' Sundriesmen,
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DEALERS IN PATENT MEDICINES, PERFUMERY, AND PROPRIETARY ARTICLES,

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SURGICAL APPLIANCES, TRUSSES, &c., &c.,

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The Original Inventors of the Prime, Rich, Golden-colour Cake and Fluid Extract of
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12/- per Gross.

Less 15 per cent. off cash with
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Less 12½ per cent. within one
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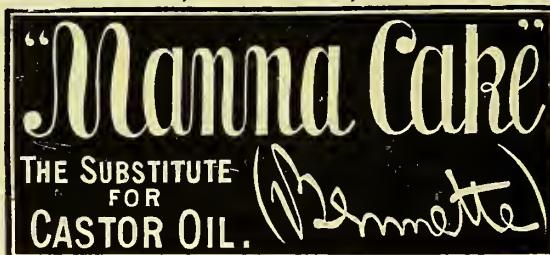
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In Towns over 75,000 Population
Special Arrangements will be
made.



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CONDITIONS OF AGENCY.—1. Perpetual Agency Guaranteed. 2. 2,000 Handbills, containing Trade Mark, and with the Agent's name at foot, are sent with each gross ordered. 3. No less quantity than 1 gross will be sent out. 4. Agent to take at his own risk quantities as here given, viz.:—In Great Britain, 1 gross for every 4,000 population; in Ireland, 1 gross for every 6,000 population of the town or district for which he accepts. Carriage paid in England over 5 gross, Ireland over 10 gross. 5. Terms cash, or two reputed referees.

TO COLONIAL AND FOREIGN HOUSES.—Monopolies are offered on terms enabling them to force the sale in any way they think best. Terms 12s. per gross, free alongside ship, less 25 per cent. for cash against shipping documents. A liberal supply of printed matter is included in this, the consignee issuing such as he thinks best for his monopoly, the large margin of profit being allowed for this and retail profits. On orders of 20 gross and upwards at a time printed matter is supplied in any language. These contracts are made on the basis of 1 gross for every 8,000 population, and the interest of consignor and consignees will be enhanced by the contracts covering as large districts as can conveniently be managed. In these cases the whole quantity contracted for should be taken out within three years, and consignees must guarantee in writing not to supply the home trade through any source.

Applicants for these must state the boundaries of monopolies sought, and its population, which will be compared with printed statistics. Should these boundaries infringe on existing monopolies, the fact will be pointed out, and arrangements made accordingly.

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"Please forward me another 4 gross. Its pleasant taste and easy operation constitute it a favourable medicine in my own, as in other families."—A. T. BORTHWICK, Chemist, Selkirk.

"A Physician in the West of England says he gave Calomel and Jalap in repeated doses without effect. The MANNA CAKE acted almost immediately. The article is selling freely."—W. H. HANWORTH, Chemist, Trowbridge, Wilts.

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P.S.—There have been in all nearly 450,000 Manna Cakes ordered.

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BENNETTE & COMPANY, 62 Dale Street, LIVERPOOL,

Who are Prepared to Execute Orders to any amount at One Day's Notice.

The MANNA CAKE is sent out in Handsome Decorated Tin Boxes, suitable for display on the Counter.

ESTABLISHED 1848.

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INVENTOR OF THE
SPIRAL ELASTIC BELTS, STOCKINGS,

And of SUSPENSORY BANDAGES free from Waist Band,

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BY ROYAL LETTERS PATENT,

PATENT LIFTING INGUINAL HERNIA TRUSS,

FREE FROM CIRCULAR STEEL BAND.

Guaranteed to keep up any Hernia whatever may be its size. Send circumference of body.

Price, Single, £2 12s. 6d.; Double, £3 13s. 6d. Discount to the Trade, 25%
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Current Accounts opened according to the usual practice of other Bankers, and Interest allowed on the minimum monthly balances when not drawn below £25. No commission charged for keeping Accounts, excepting under exceptional circumstances. The Bank also receives money in Deposit at Three per cent. Interest, repayable on demand. The Bank undertakes for its Customers, free of charge, the custody of Deeds, Writings, and other Securities and Valuables; the collection of Bills of Exchange, Dividends, and Coupons; and the purchase and sale of Stocks, Shares, and Inns. Letters of Credit and Circular Notes issued. A Pamphlet, with full particulars, on application. FRANCIS RAVENSCROFT, Manager.

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HOW TO PURCHASE A HOUSE FOR TWO GUINEAS PER MONTH, with immediate Possession and no Rent to pay. Apply at the Office of the BIRKBECK BUILDING SOCIETY.

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KAY'S New TRANSPARENT CEMENT for BROKEN ARTICLES.

"Clear as crystal," "stronger than glass," "tough as leather." 6d., 1s., 2s., in boxes or on cards.

KAY'S COMPOUND ESSENCE OF LINSEED, ANISEED, SENECA SQUILL, TOLU, ETC. ETC.—"The Stockport Remedy," for Coughs and Colds. Cures nine cases out of ten. In bottles, 9d., 1s., 1d., 2s., 9d., 4s., 6d., &c.

LINSEED LOZENGES.—(Solidified Linseed Tea).—An agreeable sweetmeat, most demulcent and nourishing, which may be taken in any quantity by Children and Adults, for their soothng and beneficent effect. Packets, 6d.

CHLORAL LINSEED COUGH LOZENGES.—A medicated Linseed Extract, in out-door use, on leaving a heated room, &c. Demulcent, Expectorant, Warming and Soothing. Packets, 6d.

LINUM CATHARTICUM PILLS (of the Purging Linseed). Purely vegetable; the most wholesome aperient and corrective for young persons and adults. Boxes, 9d., 1s., 1d., 2s., 9d., of all Chemists.

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For Circulars, Show Cards, Specimens, &c., address:—

KAY BROTHERS, M.P.S., STOCKPORT.

Sold by all the Wholesale Druggists, Sundriesmen, and Medicine Vendors.

HOP BITTERS CAUTION.

Our Preparation being duly Registered and Trade Marked under the Laws of Great Britain, and having been placed before the Public at great expense to us, we give notice that we shall fully protect our rights in every instance. Anyone making use of our Title, Labels, bottles, or in any way attempting to trade on our reputation will be dealt with at once to the fullest extent of the law.

HOP BITTERS CO., London.

HOP BITTERS.

We guarantee the sale of Hop Bitters, and authorise you to do the same by your customers. If at any time you are dissatisfied with them, please return what you have sold in good condition, and we will remit you the amount paid for same.

HOP BITTERS CO.

THE ONLY PERFECT ENEMA OBTAINABLE.

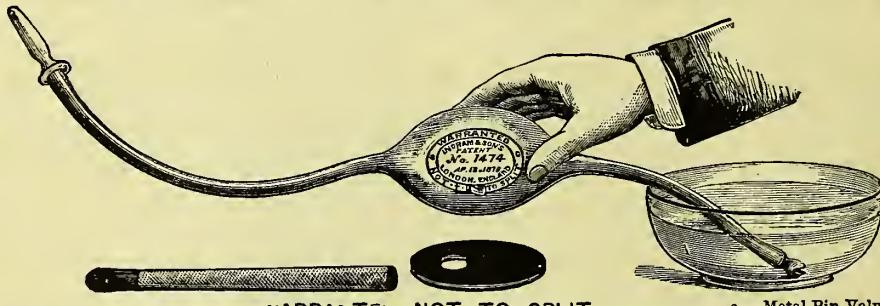
INGRAM'S IMPROVED HIGGINSON ENEMA AND SYRINGE APPARATUS

(BY ROYAL LETTERS PATENT).

Made without Seams or Ribs by our Patent Process of dipping in a solution of India Rubber, thus adding great strength and durability.

NONE GENUINE UNLESS STAMPED WITH NO. OF PATENT 1474.

CAUTION.—The only
Enema made without
Ribs.



A.—Metal Pin Valve.

WARRANTED NOT TO SPLIT.

All Imitations may be
detected by the Ribs on the
Surface, and are always
liable to split.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is perfectly smooth on the surface, will not become hard or sticky, will not leak, and will not admit air while injecting or refilling. Specially prepared to resist the heat of tropical countries.

The great superiority of **INGRAM'S IMPROVED PATENT SEAMLESS ENEMA** over all others has given rise to VARIOUS IMITATIONS, and it has become imperative that the Patentees should, in order to PREVENT DECEPTION, explain the PROCESS OF MANUFACTURE OF THEIR ENEMA and the MODE OF MANUFACTURE OF IMITATIONS thereof, as they have UNDENIABLE PROOF that INFERIOR ENEMAS are positively BEING SOLD as their "ADVERTISED" PATENT SEAMLESS ENEMA.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is made by a NEW PATENT PROCESS, viz.: By repeated dipping in a solution of India Rubber until the required substance is attained. This process adds greatly to its STRENGTH and DURABILITY, and, at the same time, dispenses WITH ALL SEAMS, which, as is well known, are weak points in an Enema. This improved mode of manufacture (the result of long study and experience) enables the Patentees to produce a PERFECT ENEMA WITHOUT SEAMS, thus overcoming the great fault to be found in ALL other Enemas, viz.: SPLITTING AND LEAKING, which has always been a source of trouble.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is fitted with IMPROVED VALVES, which prevent the admission of air with the fluid and CAN at any time BE REPAIRED, if necessary.

CAUTION.—Imitations of **INGRAM'S IMPROVED PATENT SEAMLESS ENEMA** are made of several pieces of Sheet India Rubber, which are cemented together and shaped in a mould, THUS PRODUCING RIBS ON THE SURFACE, and ENEMAS SO MANUFACTURED ARE ALWAYS LIABLE TO SPLIT AND LEAK AT THE SEAMS, AND THUS TO BECOME QUITE USELESS.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA may be distinguished from ALL IMITATIONS by its ENTIRE FREEDOM FROM RIBS OF ANY DESCRIPTION on its surface, and by having an IMPROVED METAL PIN VALVE at the suction end A; and it is acknowledged to be the ONLY PERFECT ENEMA OBTAINABLE.

Patented in England, No. 1474, April 12, 1878; in France, No. 126,909, October 11, 1878; and in America, No. 212,939, March 4, 1879.

To be obtained of all Surgical Instrument Makers, Druggists' Sundriesmen, Chemists and Druggists, in the three following qualities:—

- No. 1a. Highly Polished, in Red, Green, Blue, Black, or White.
- No. 1b. Unpolished, in Red, Green, Blue, Black, or White.
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RECEIVED HIGHEST AWARDS—MEDALS AND DIPLOMAS—OVER ALL EUROPEAN & AMERICAN COMPETITORS.

CENTENNIAL, 1876.
MELBOURNE, 1880.
QUEBEC, 1882.

PARIS, 1878.
CUBA, 1881.
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ANOTHER INTERNATIONAL VICTORY!

GOLD MEDAL AT VIENNA IN 1883 OVER ALL COMPETITORS. MEDICAL JURORS AWARD.

ORIGINALITY, RELIABILITY, & GENERAL EXCELLENCE OF MANUFACTURES.

A VERDICT UNIVERSALLY AND CONTINUOUSLY SUSTAINED.

SPECIALTY:

PHARMACOPŒIA & SURGICAL PLASTERS,

In Indiarubber Combination, Porous and Plain Spread.

ANTISEPTICS AND ABSORBENTS.

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” ” 10 ” ” 15 ” ”

” ” 5 ” ” 10 ” ”

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CARRIAGE ALLOWED OR PREPAID ON £25, NETT, ORDERS ONLY.
EVERY ARTICLE WARRANTED.

OUR POSITION UNCHANGEABLE. THE BEST QUALITY ONLY.

WE manufacture but one quality, a policy to which we adhere with unwavering fidelity. No reward, however alluring, could induce us to depart from our high standards. We daily refuse large orders rather than surrender our firm convictions to transactions on the basis of "How much do you want to pay?" or "We will sell you at any price." We have no interest or ambition whatever in such operations, simply because such a course clearly admits alterations in formulae and materials.

Our best abilities are employed for the purpose of improving old and originating new articles and processes in our special branch of Pharmaceutical Chemistry. Our affections are centralised in scientific and advanced Pharmacy. There is no abracadabra, guesswork, or vacillation about our manipulations; every article is made of refined materials—pure unadulterated fabrics—assayed medicinal agents, and after officinal formulae.

Our operations are conducted wholly to serve the best interest of the medical practitioner, to strengthen the intelligence of the dispensing Pharmacist and Druggist, to comfort the patient, and not to serve commercial ends by producing or abetting a class of suspicious medicinal (?) agents, that should be suppressed by every dealer who has an honest regard for the progress and morale of Medicine and Pharmacy.

Since the establishment of our industry, extended and enriched by an original and universally recognised class of articles, never before attempted in this or any other civilised country, our only aim and ambition has been and always will be to excel in making the very highest quality, in the most acceptable and practical form at exceedingly reasonable rates. That we have succeeded is proven by the brainless self-styled competitors, who not only unblushingly plagiarise our descriptive and literary matter, but who pirate our styles, labels and trade-marks, and who thrive and exist through inferred deception.

SPECIAL NOTICE.

Our New Catalogue of Specialties is ready for delivery, and contains a complete assortment of our preparations. A copy will be sent to any Chemist on application.

BENSON'S CAPCINE PLASTERS.

Pharmacists and Druggists are cautioned against purchasing colourable or fraudulent imitations; the number of imitators are increasing, and with them a class of preparations that are in no sense what is claimed for them by unscrupulous solicitors and makers of being "just as good and the same thing."

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Benson's Capeine Plasters have merited their immense sale through the highly beneficial and powerful curative action of incorporated alkaloidal and medicinal concentrations, found in no other preparation.

To prevent imposition see that the word "CAPCINE" is cut in the PLASTER, and that our special trade-marked Stamp is affixed.

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KEENE & SHA WELL'S HOMEOPATHIC MEDICINES.

74 NEW BOND ST., LONDON.

Successors to HEADLAND & CO.

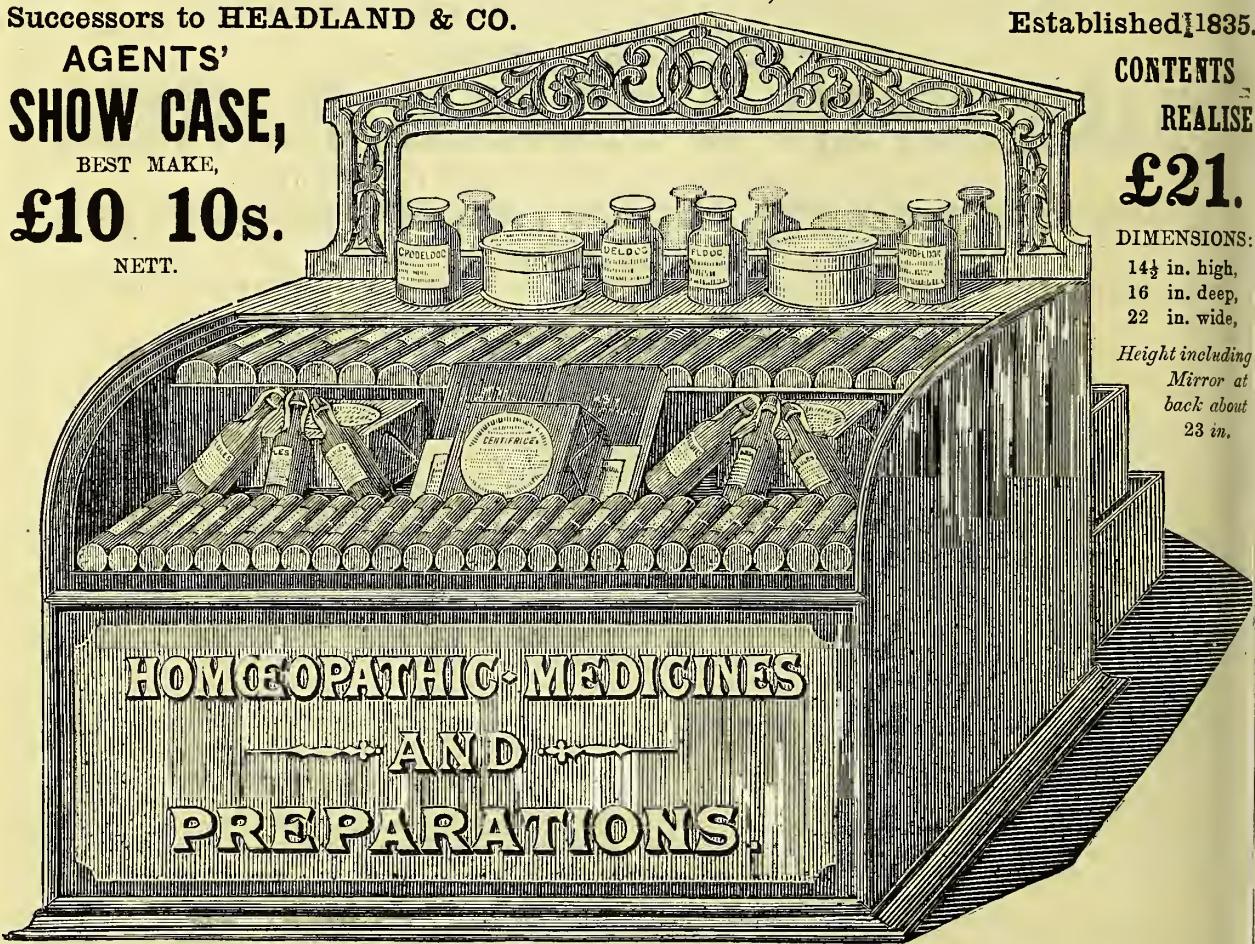
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14½ in. high,
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A ONE-SHILLING Bottle, as Sample,
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The Style we put up the Tinctures
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SEND FOR
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Our £4 4s. Agents' Show Case—Contents realise £3 8s.

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